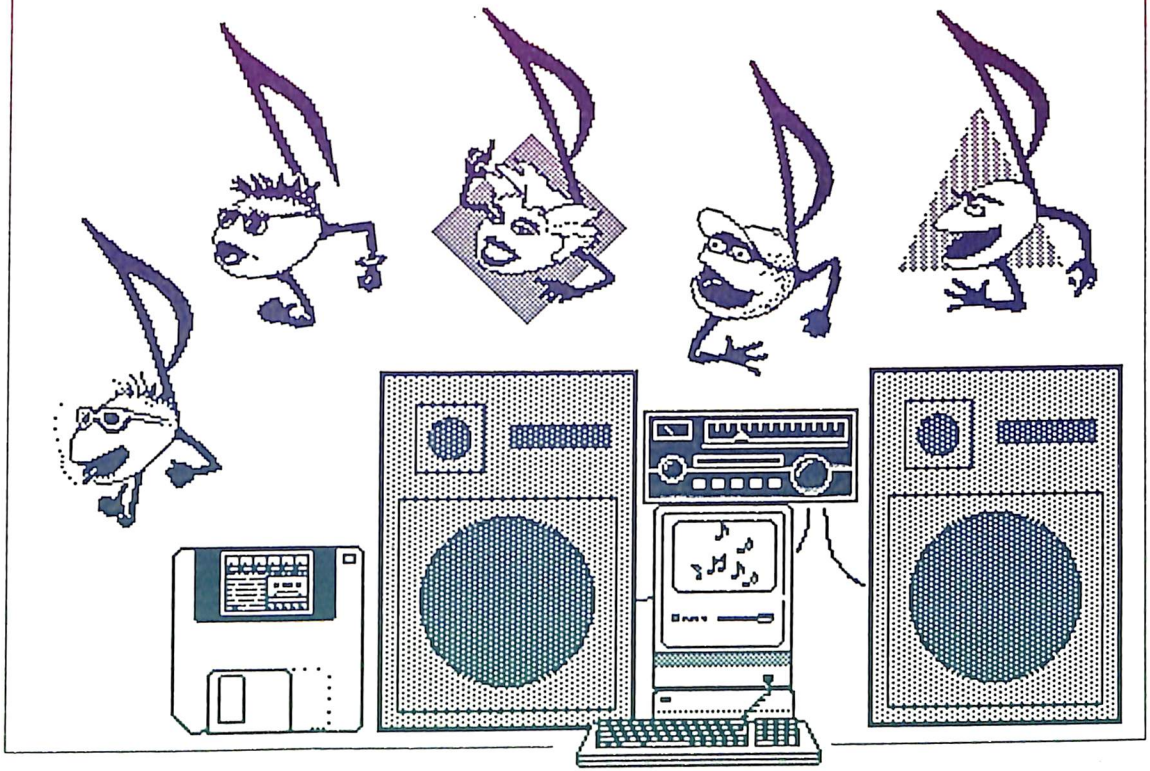
STUDIO SESSION™



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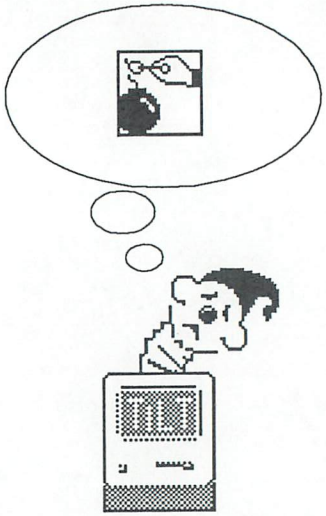

SPECIAL ALERT!

PLEASE READ THE FOLLOWING:

If you possess a copy of "JAM SESSION DEMO" - which was a pre-release version of Studio Session software - DO NOT try to play any "Jam Session" music on this version of Studio Session. You will not be able to play any music, and will most likely cause the program to "bomb" - either manifesting the famous (and fearsome) BOMB picture, or worse, cause your screen to "lock" in an ugly abstract pattern and then compel your Macintosh to make very loud and UN-musical sounds.

STUDIO SESSION™

Originated, designed and produced by
Bogas Productions
520 Cashew Court
San Ramon, California USA

Published by
Impulse, Inc
Minneapolis, Minnesota USA

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CAST & CREDITS

STUDIO SESSION: The Software

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STUDIO SESSION: The Manual

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& SPECIAL THANKS:

MIKE HALVORSON - the Publisher with a heart. His enthusiasm and strong support are muchly appreciated.

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ED BOGAS -- Even though it's his production, he's still due great credit for having been supportive and patient, while being *incredibly* busy.

THOMAS HEDGES and MARK ZIMMER (Fractal Software) - For their sound advice, special help and avid testing.

GARY CLAYTON - Recording Engineer Extraordinaire - for processing our sound samples.

DAVID LATHAM, MARTHA RUBIN, and KEVIN CROSS - For testing and support.

The PEPSI-COLA Company

And many others who must remain unnamed. ("To them we dedicate this next song...")

PREFACE

Welcome
to
STUDIO SESSION!

We who have designed and produced STUDIO SESSION now welcome you as a new member of a growing community - the increasing numbers of people who are writing, editing, arranging and performing music with their Apple Macintosh computers. You now possess STUDIO SESSION because our program does all of the above in a wonderfully easy manner. STUDIO SESSION will definitely serve your purposes, whether you are

••• a musical novice, wanting something that will give you a glorious venue for discovering and developing your musical aptitudes... Something that will teach you musical mechanics, notation, and give you a variety of instruments to perform on..

••• an amateur who loves music enough to have studied and mastered an instrument, but who wants to try composing and arranging music for multi-instrument ensembles - without hiring a back-up band...

••• a professional composer-player, with a strong "itch" to get into a studio for some extensive arranging and recording, and who wants to go from studio to stage in a minimum of steps...

••• all of the above, and a dedicated Macintosh user, who has mastered the basic Mac interface of mouse-use and keyboard short-cuts, and who is ready for an extraordinarily powerful application - that *ISN'T* a data base manipulator!.. (Note: You *can* play Jazz with Studio Session, but don't try book-keeping!) (..yet.)

Seriously, we encourage you to explore the manual and learn the basics of STUDIO SESSION. To get the full use of its power, you should thoroughly explore this guide to the features. Even though we have followed the standard Macintosh interface model, and have given you lots of wonderful mouse-use techniques, there's a LOT of goodies hidden around this program that you can't find without the program. So read on, and be inspired by seeing (and hearing!) all that our product offers. We won't make too grand a claim to having "something for everybody" - but STUDIO SESSION sure comes close!

As you master the many facets of STUDIO SESSION, you may come up against some odd screen display that doesn't seem "right", or you may be getting a bug (or bomb) that stubbornly prevents you from enjoying the program. To help you get around these obstacles, please call us at the HOTLINE.

BUGS & BOTHERATION ? CALL...

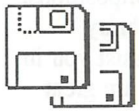
(1) 800-328-0184 /*TOLL-FREE*

Or "write" us via COMPUSERVE™...
Our number is 71106,703

INTRODUCTION

Before you "boot" the program,
pause to inventory the components of the Studio Session "package". Inside the box you should have found this manual and *three* micro-floppy disks. The contents of the three disks are:

ONE disk containing the Studio Session program -
PLAYER, EDITOR, PHRASE LIBRARY, SONG FOLDER and Systems folder

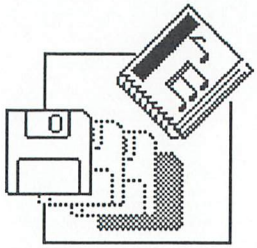


TWO extra disks containing "files" -
DIGITIZED MUSICAL INSTRUMENT SOUNDS

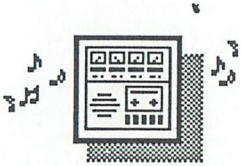
All Studio Session™ programs, utilities and resources are organized on these three disks. On the first disk, labelled 'PROGRAM," are stored two "applications" - the **Player** and the **Editor**. These applications provide composition, arrangement and performance tools for pieces ranging from solo to six-voiced compositions. The first disk also contains a "Systems" folder that contains the basic programming required to run the Macintosh, the external disk drive(s) and the Imagewriter or LaserWriter printer.

OOPS:

TRUE CONFESSIONS TIME - We didn't mean to stuff the disks so full, but in order to ship you all the goodies that we included, we had to leave the printer driver file OFF of the program disk. Yes, it's true: Studio Session is NOT shipped with an Imagewriter printer driver file included with the System files. BUT all is not lost. You CAN print your scores, by following the easy steps found in the "Printing a Manuscript" Appendix, at the back of this manual.



The Studio Session "Program" disk with its PLAYER and EDITOR programs give you full compositional and "performance" capacity. By playing "tapes" in the easily-operated PLAYER, you get exciting audio reproduction that you can play through the MacNifty™ Stereo, or even through your home Hi-Fi. With the EDITOR you can create and arrange pieces that range from solo to symphonic compositions, while you explore the weaving and mingling of instrumental voices in any (yes, *ANY*) number of combinations. In the INSTRUMENT disks, the many "Instrument Library" files offer you the resources of electric and acoustic guitars, a variety of percussion instruments, woodwinds, strings, synthesizers and even the human voice. (Ninety-one diverse musical sound sources await your compositional pleasure.)



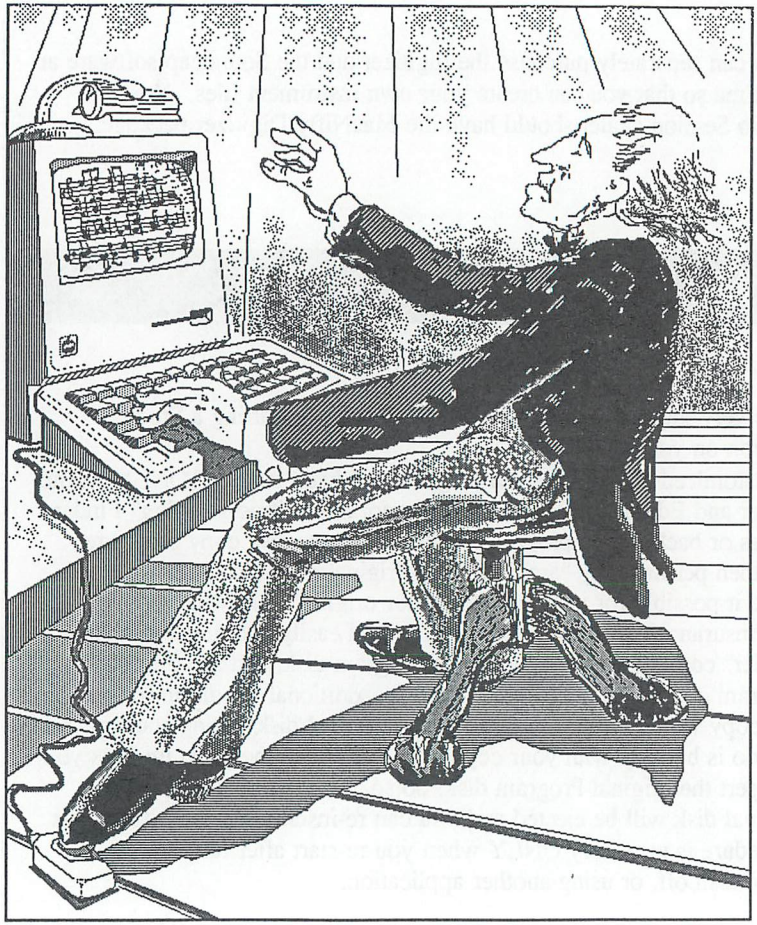
Additional resources include a collection of 21 sample compositions, stored on the program disk, and a comprehensive phrase library excerpted from those compositions. These materials will assist you in further musical experimentation and synthesis. (The songs are great entertainment, too!)

Specially-transcribed instrument files fill the other two Instrument disks, each identified as "Instrument A (or) B" on the label.. (These disks will not operate the Macintosh, but should be inserted AFTER you have "booted" (started-up) the Macintosh with the Studio Session Program disk.) All of the instrument files were created by recording the actual sound of fifty instruments in a professional recording studio. Digitization of the analog sound wave, using SOUND-CAP™ software, permitted us to transcribe each instrument's unique sound into binary data accessible by the computer program. Through Studio Session, your Macintosh can now open and read the digital data files and you can "play" and hear the sounds of musical instruments. ("Remember: You heard it here first!")

You can separately purchase the digitizer and the Soundcap software at any time so that you can create your own instrument files. Your Studio Session dealer should have the MacNifty Digitizer package. Ask!

BUT...

One very important thing you should do before starting a Studio Session on your Macintosh -
A customized copy protection program has been installed ONLY on the Player and Editor. This means you cannot make "free-standing" Finder copies or back-up the programs with third-party disk copy programs, and then permanently "archive" your original disk. However we have made it possible for you to protect your original disk while enjoying the "insurance" of using a "copy." You can easily and quickly make a "finder" copy of the contents of the program disk, and run the "copied" program disk for hours of use. The only additional condition for using this copy would be the insertion of the original disk during start-up. All you do is boot-up with your copy disk, and when the program asks you to insert the original Program disk, do so. After a quick pause, the original disk will be ejected and you can re-insert your copy disk. This procedure is necessary ONLY when you re-start after turning the Macintosh off, or using another application.



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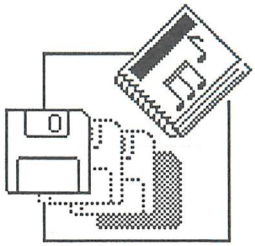


Now that you have it...
What IS it that you have?

So far, three disks and a manual,
now open to this page.

Turn the page, and we'll draw you a map,
to get you into the heart of both the
Studio Session™ Player and Editor.

Everything else (all the goods) follows.

(Including detailed explanations of
the features, how the features interact,
and a library of Appendices in the back
of the manual.

Turn the page, and enter the Studio...
First, we'll show you the way to Play,
and then we'll set you up to Edit -
- to compose and arrange just like
Lennon & McCartney
Mozart
Ellington
or...
just like <u>You</u>.

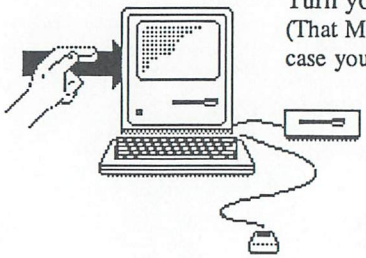
THE Official Studio Session™ Player "Jump Start" Tutorial

version 1.2

Designed, compiled and industry-standardized by
Bogas Productions and MacNifty Central.

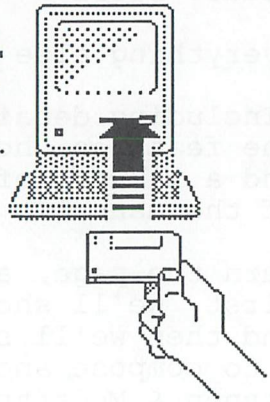
1.

Turn your Macintosh "ON," with the switch in the back.
(That MAY seem obvious, but it is helpful to include as a step, just in case you forgot...)



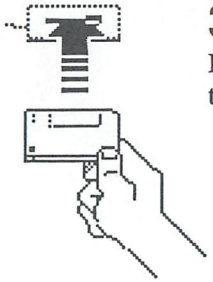
2.

Insert the Studio Session PROGRAM disk into the main disk drive.



3.

Insert (either) one of the "MUSIC" disks into the external drive. (If you have one.)



OR:

Load every file on all three disks into your Hard Disk Drive.
(If you have one.)

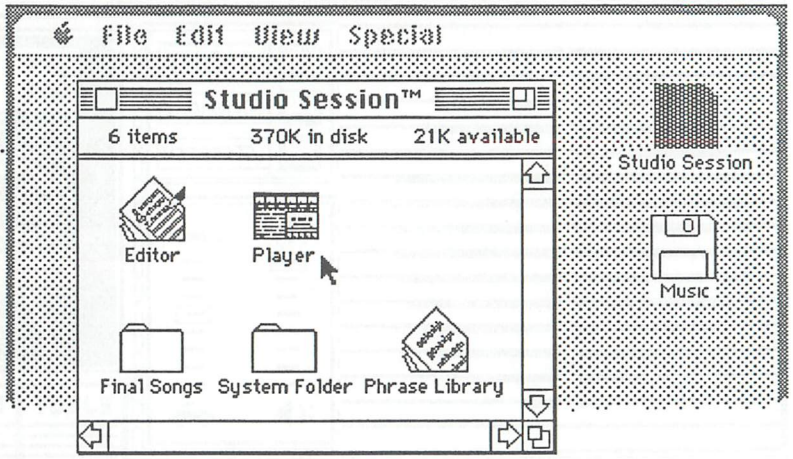
• Put all Instrument files from both Music disks into ONE folder or volume.

4.

OPEN the "STUDIO SESSION" disk icon by double-clicking on it.

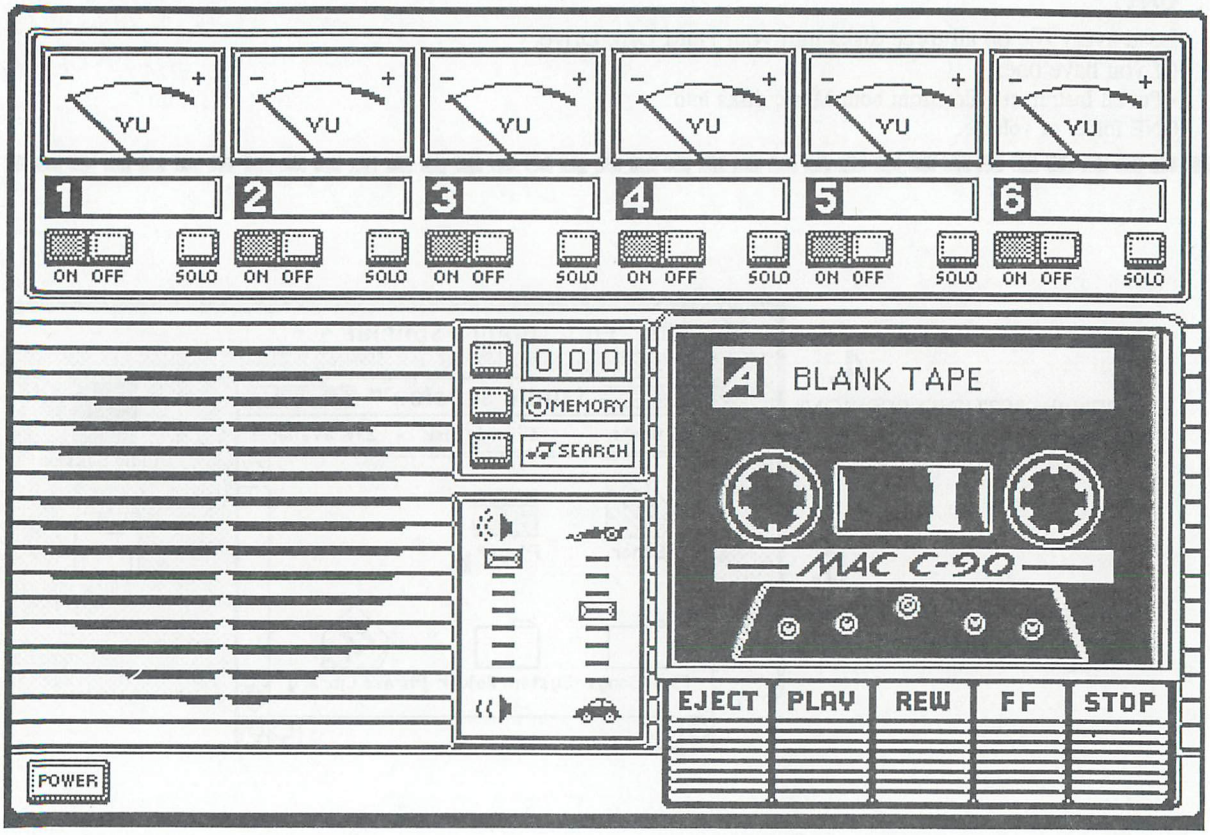
5.

Locate the "PLAYER" icon and then double-click on it.



6.

Pause while the PLAYER screen is drawn up, and then pause to admire it. (See next page.)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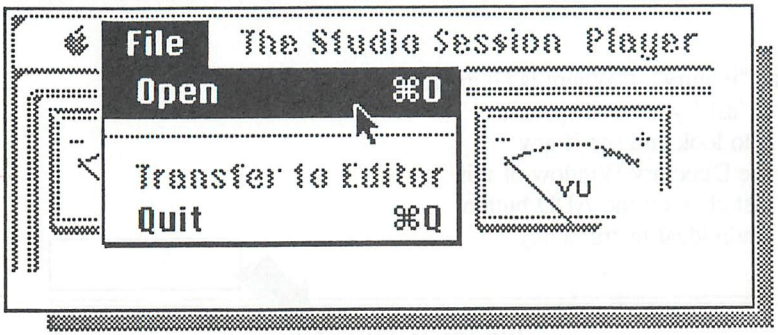
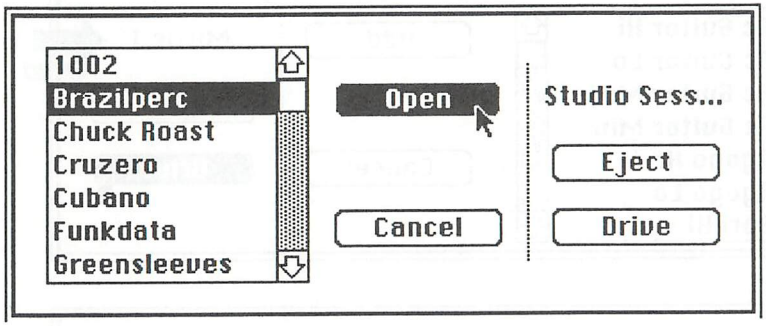


6.1

Next, click-drag on the FILE menu to the "OPEN" command.
Realease the mouse button, and...

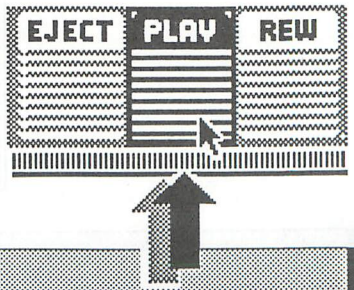


7.

In the "Dialog Box" now appearing on your screen, select a song by scrolling through the selections and then clicking on the title. Next, click on the "Open" button. The dialog box will disappear. The screen will then display the full "PLAYER" screen.

8.

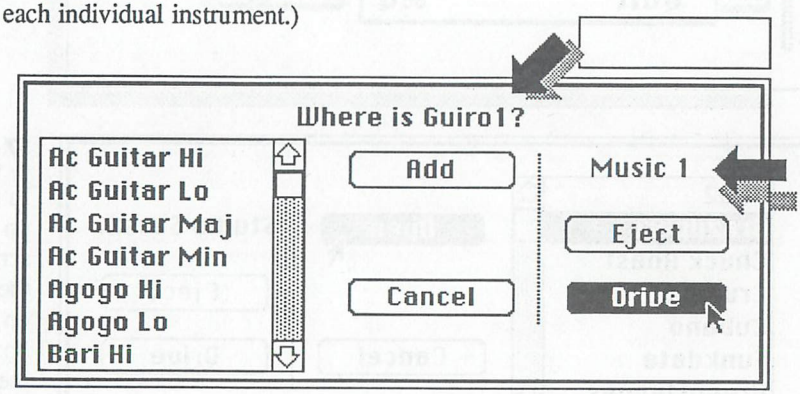
On the "cassette" label, you should read the song title you selected. Click on the PLAY button on the Player screen, to start the playback sequence.
As you wait, you will note that nothing will happen. The song is not playing. Very shortly, a Dialog Box will appear. To HEAR the song, follow the sequence detailed on the next page.

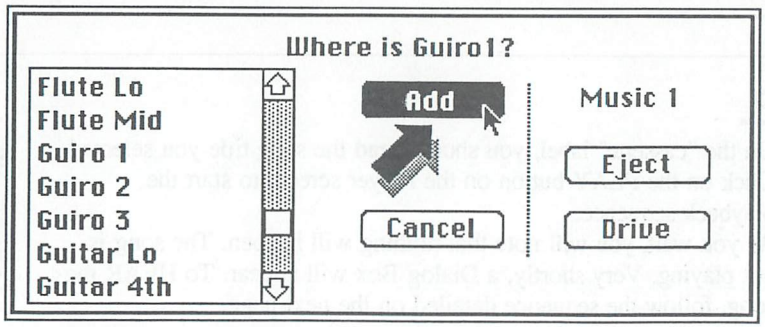


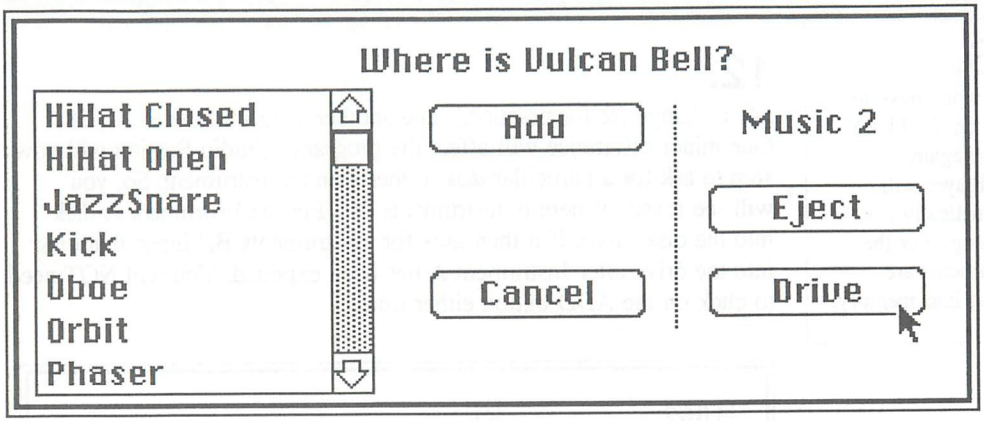
9.

After another Dialog Box appears, an "inquiry" ("Where is Guiro 1?") located above the listing window will "ask" you for a specific instrument, by name. The first step is to look and see if any instruments are listed (as shown) in the Directory Window of this dialog box. If any names are listed, just click on the ADD button. (You do NOT need to click on each individual instrument.)

NOTE: If no instruments are listed, put either Instrument disk into a disk drive. The listing window should fill up with instruments' names. Now you can click on ADD.







10.

After you've clicked on ADD, the box may remain on the screen, *but* the program will ask for a different missing instrument. If so, you only need to -

- Click on the Eject button
- Put the *OTHER* "MUSIC" disk into the drive
- Wait until all new Instrument names fill the listing window, and
- Click once on the ADD button. Wait.

11.

Now relax... & listen!

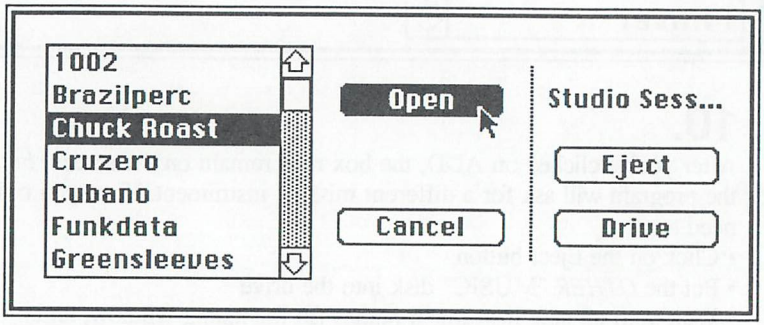
NOTE

PS.

You won't have to click on the PLAY button again.
The Player will automatically cue the song after the instruments are loaded into memory.

12.

For a change (& for practice,) cue another song into the PLAYER. One minor difference will affect the program - Studio Session will now stop to ask for a particular *disk*, rather than an instrument. So, you will see it ask "Where is Instruments A?" Put the Instrument A disk into the disk drive. If it then asks for "Instruments B," insert that disk into the drive after Instrument A has been expelled. You will NOT need to click on the ADD button either time.



13.

Studio Session gets to work, and another amazing composition fills the room with polyrhythms and tonal dynamics.... IF...
You already have a MacNifty™ stereo to plug into your Macintosh. Then you can really hear the songs as MUSIC!

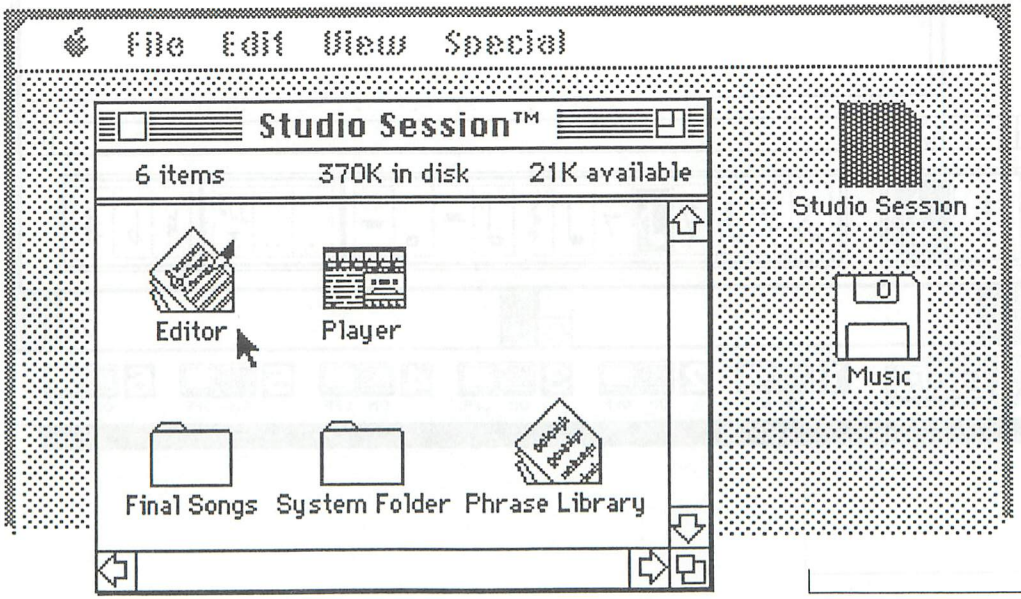
Are you ready now to write your own concerto? Trio? Symphony? Folk song? Turn to the next page to learn the use of the Studio Session Editor!

HOW TO USE THE EDITOR:

(or, take a "JUMP START" at composing your own music!)

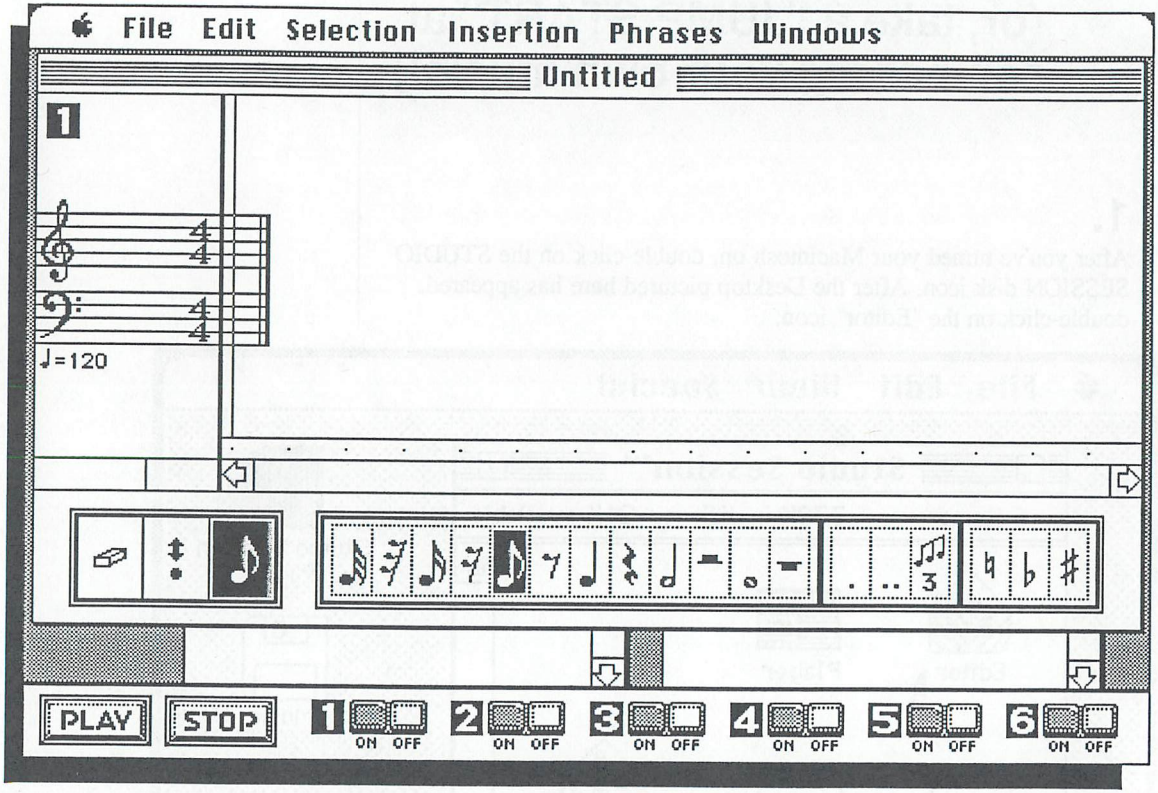
1.

After you've turned your Macintosh on, double-click on the STUDIO SESSION disk icon. After the Desktop pictured here has appeared, double-click on the "Editor" icon.



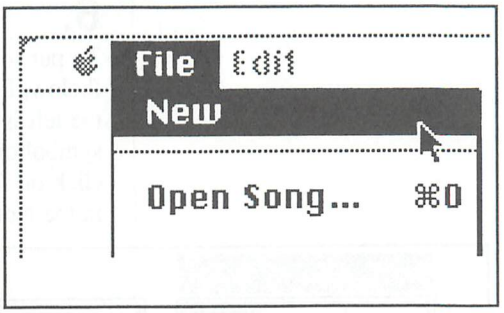
2.

Pause to let the computer draw the EDITOR screen. After it is completely displayed, look it over quickly. This is your "blank slate," which this chapter will quickly teach you to use.



3.

The first step in your "do-it-yourself" *Show & Tell* is this: Click-drag on "File" in the Menu Bar, and choose the "New" command, as shown here.

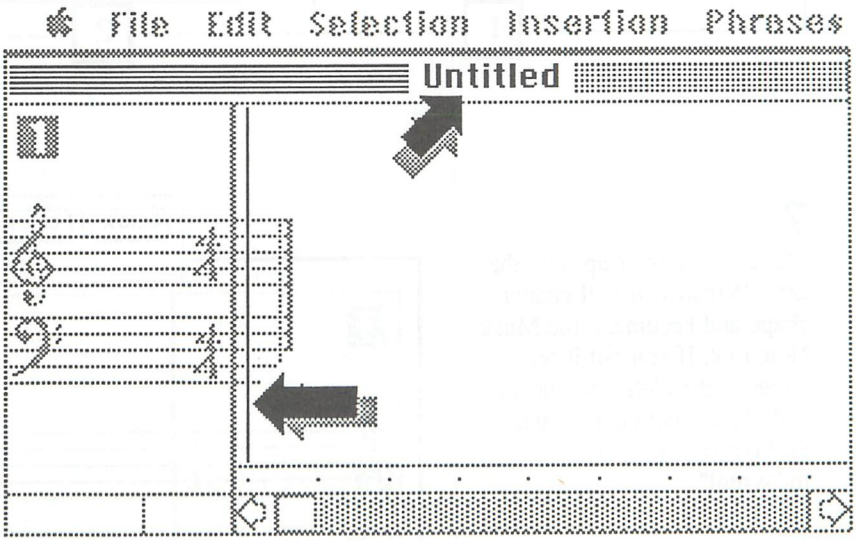


4.

As your basic start-up options, you can either choose to "OPEN SONG" - that is, work on an existing song, OR you can open a "NEW" screen, which will look like the one you've now created. As you open a new screen, you find the word "UNTITLED" remains displayed across the top of the work area - which is called the "Staff Window."

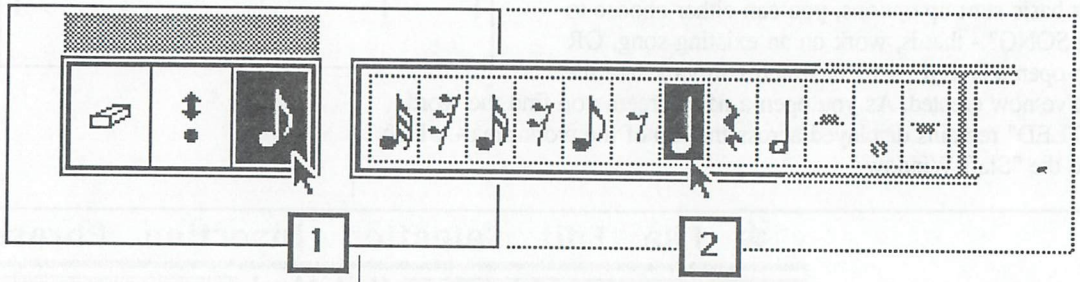
5.

In the Staff Window, you'll see a vertical line blinking on and off. THAT is where you will now do all of your song writing.
It happens to be located at this point because there is no music.. yet. Think of this Insertion Point as working very much like the Insertion Point or the blinking cursor of word processing software - active and ready for you to start "writing."



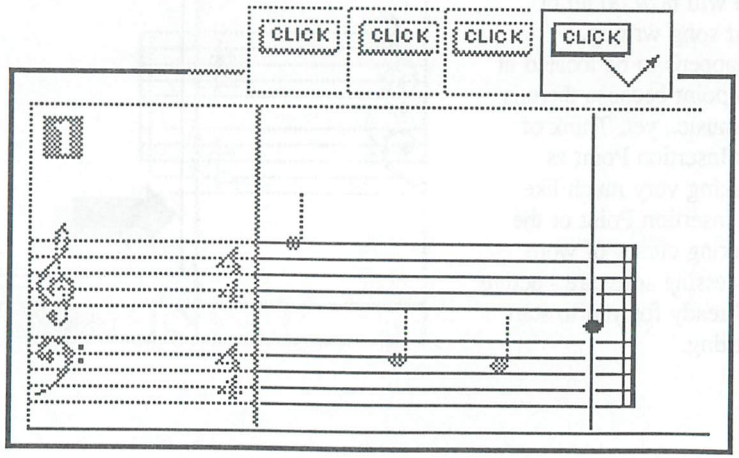
6.

To put some music into the Staff Window, look for the "Tool Box" (below, left - No. 1) with the three tool symbols. The first symbol on the left is the Eraser, the center symbol is the Note Bender, and the symbol on the right (No. 2) is the Music Note tool - which you should click on for now. The next step is to click on one of the notes or rests in the Note Palette to the right of the tool box.



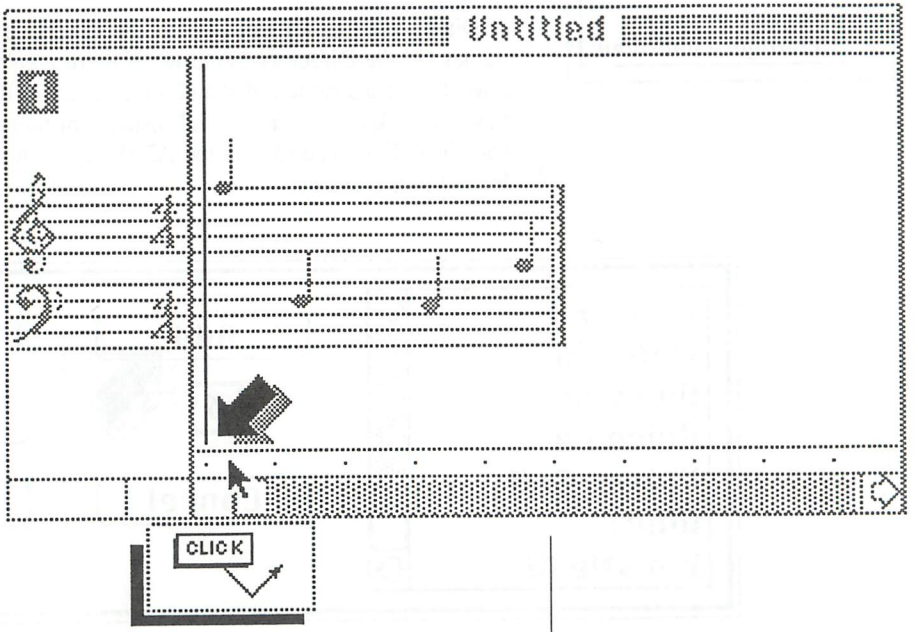
7.

Move your cursor up onto the Staff Window. It will change shape and become.... the Music Note tool. If you put it on either of the clefs and click... and click... and click, you'll find out how easy it is to "write!"

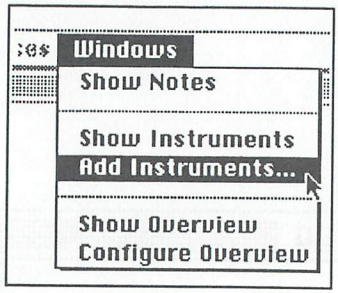


8.

It looks interesting but what does it SOUND like? How do you PLAY your new melody?



FIRST, move the tool down off of the Staff Window. It will change shape back into the Arrow. Put the arrow, as shown, into the long rectangle with dots - the Range Selector Bar - and click at a spot *below* the beginning of your melody, as shown above. The Insertion Point should appear at the beginning of the new melody.

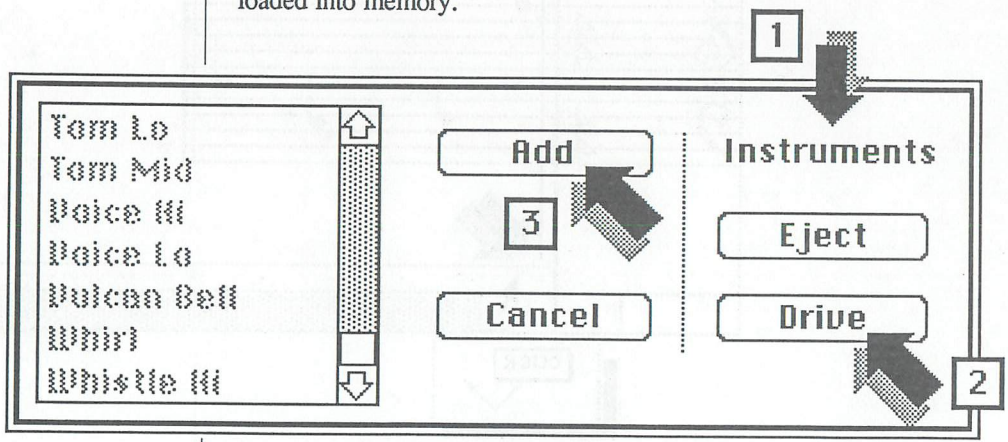


9.

Next, move the arrow up to the Menu Bar, (ignore the shape-changing en route!) up to the WINDOWS Menu.
Simply click-drag to the "Add Instruments" command.

10.

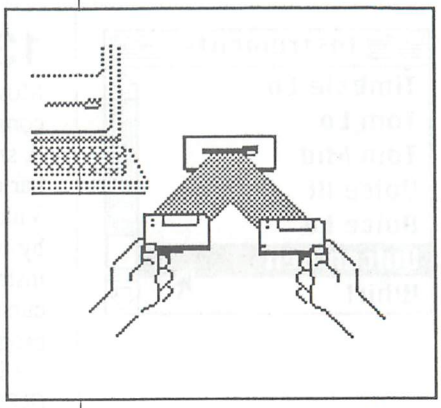
A Dialog Box, as shown, will appear. Check (1.) to see that instrument names fill the Directory Window. If there aren't any present, just put one of your instrument disks (2.) into a drive. Remember, you don't have to click on any individual instrument names that the program asks for; just click once (3.) on the ADD button, and the whole disk will be loaded into memory.



NOTE: Your two instruments disks may be labelled "Music 1" and "Music 2" - but the title in the Dialog Box is "Instruments..." Somebody goofed on some packages but we won't tell who. They should be labelled "Instruments." Just remember that the "Instruments" the program asks for are all stored on the two "Music" disks.
ANOTHER NOTE: Even if you've already completed the loading of instruments on the Player, you'll need to do it again on the Editor. If your disks are labelled "Instruments A (or) B," ignore this note. Just follow the Dialog Box promptings.

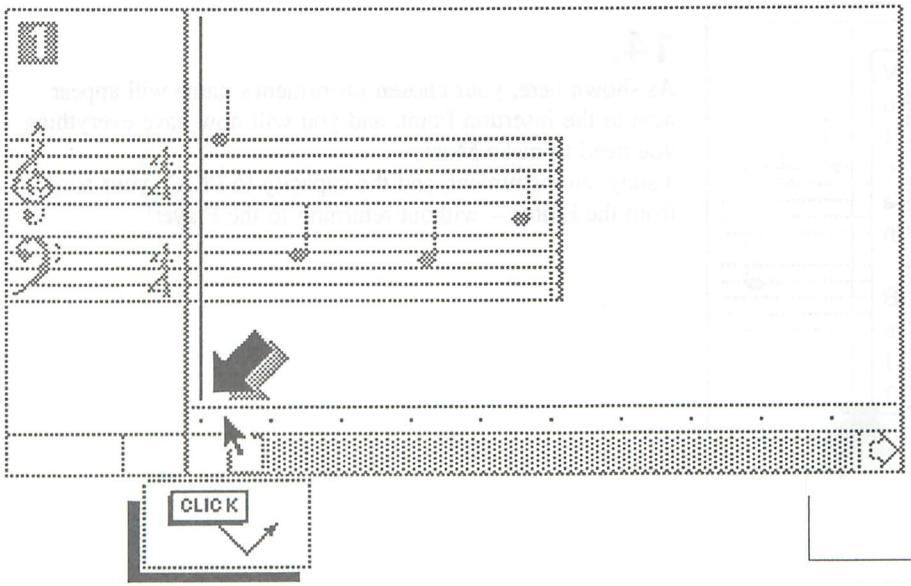
11.

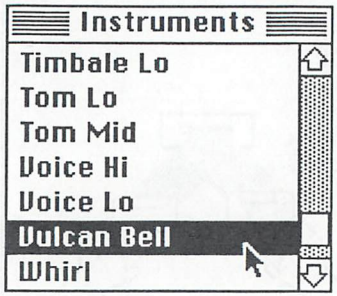
Now click on the EJECT button in this same Dialog Box, and insert the other "Instruments" disk...
and after another separate set of instruments are listed in the Directory Window, click once on the ADD button. After loading both disk's contents into the Macintosh memory, you are ready to write *AND* play.



12.

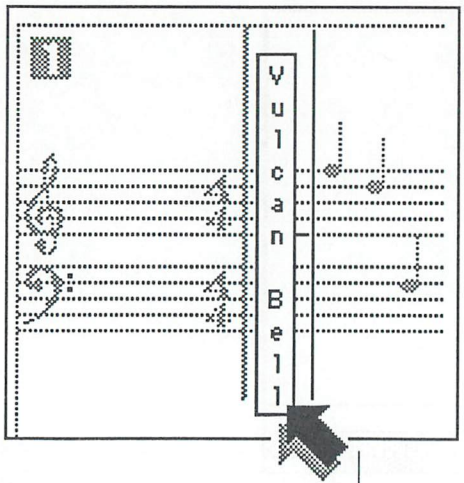
The Dialog Box will now disappear, and you should behold the Staff Window, with the Insertion Point appearing where you directed it - which is where you will now be able to put the NAME of your instrument. (This step will allow the computer to offer you a selection out of all that you've loaded into its memory. Of course it can now physically play your new song, and you'll hear it too.)





13.

Move the cursor up to the WINDOWS Menu and click-drag down to the command "Show Instruments."
A small Directory Window, as shown, will appear, and using the scroll bar on the right, you can scan the many instruments. Pick one, like the Vulcan Bell. At this point you can insert the instrument into your song by two methods: hold down on the Shift button and click on the instrument title, or click on the instrument name, and then move your cursor up to the Insert Menu and click-drag to "Insert Instrument." The program will guide you automatically through the sequence of "add"-ing the instrument to the score.
(RECOMMENDED SHORT-CUT: Try *Shift-Clicking* on the name. It's quicker AND it's safe.)

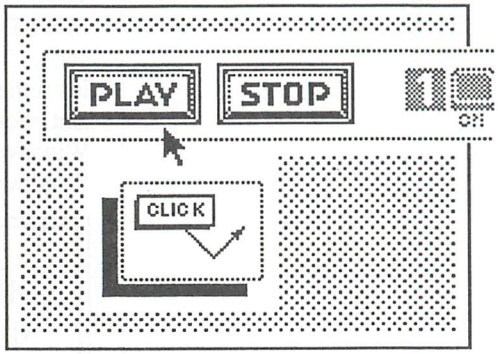


14.

As shown here, your chosen instrument's name will appear next to the Insertion Point, and you will now have everything you need to make Music--
a song, an instrument, and the capacity to PLAY your song from the Editor -- without returning to the Player!

15.

So... now you can "PLAY."
Look for the button pictured here, which is located in the lower left corner of the screen, and click once on it.... and listen to Studio Session perform your very first song.

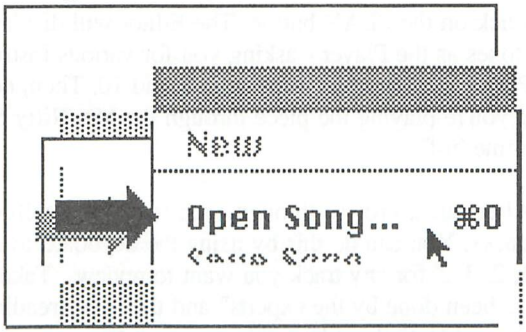


Now you may be ready to wax rhapsodic; even start on that First Symphony! Turn to the *Editor Features* section immediately following, to quickly master the true powers of the "hidden" Editor tools.

OR - TRY THIS

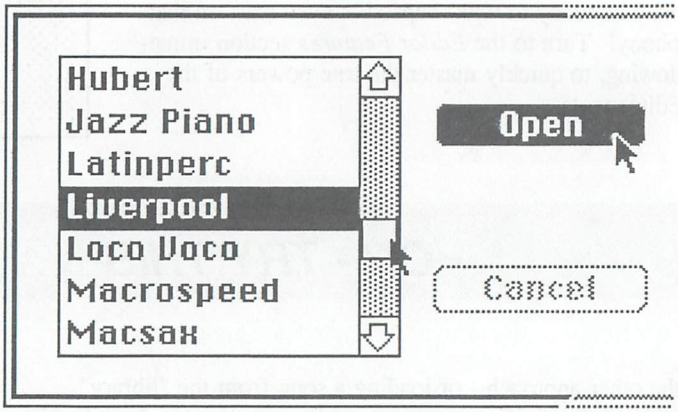
4a.

Now, try the other approach - of loading a song from the "library" provided with the Studio Session program. Repeat the step described in No. 4, but this time, click-drag to "OPEN SONG."



5a.

In the Dialog Box here shown, scroll through the directory and pick a song. You can look at the song "Solo Guitar" or you can view a multi-instrumented composition such as "Funkdata." Click on a song title, and click on the OPEN button. The song will appear in the Staff Window, with its title replacing the "UNTITLED" atop the Staff Window.

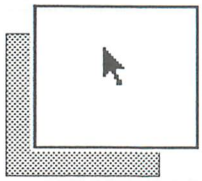


6a.

Click on the PLAY button. The Editor will display the same Dialog Boxes as the Player - asking you for various instruments. Follow the Player loading steps, especially 9 and 10. Then, hold on to your socks, if you're playing the piece through the MacNifty Stereo or your own home hi-fi!

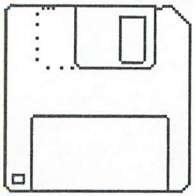
Afterwards, browse through each track by scrolling through the various tracks. You can do this by using the keyboard to type "Command Key / 1, 2, 3..." for any track you want to review. Take a quick look at "how it's been done by the experts" and then start reading the rest of the manual to find out how you can do it too.

BEFORE GOING ON, HERE'S A SHORT-CUT TO HELP YOU *ZIP* AROUND THE FOUR WINDOWS OF THE STUDIO SESSION EDITOR...



The Menu Bar, especially in the Windows Menu, facilitates bringing each of the four Windows (As well as calling up the fifth window - the Overview) to the "front" of the screen. For example, to bring the Instrument Library window up, you move the cursor up to the Windows Menu, and click-drag down the listing to the command "Show Instruments." That is the "correct," "Official/Authorized" means, but we also suggest you do the following.

First, look again at the entire Editor screen. If you have begun to write or edit a song, you have assembled all the required tools -phrases, instruments, and the screen is "loaded" - ready to go. So you should see the Editor screen (pictured on page 18) with the Staff window (Window No. 1) filling most of the screen. Across the bottom of the screen, the playback controls in their own window. (No. 2) Looking closely at the space between these two windows, you should see the two Phrase and Instrument Libraries windows. (Nos. 3 & 4) Move the cursor onto one of the "hidden" libraries - and click once. Two things happen - first, the Library appears in its entirety, and the title bar across the top displays the row of 6 narrow parallel lines flanking the library name - and second, the Staff window loses its rows of lines in the title bar. Those rows of line signify the "active" status of the window. The Library you just "brought forth" is now "active" - and the Staff window is de-activated.



When you are ready to try some complex stuff, you should consider the MacNifty array of accessories and software that will make Studio Session something to truly blow your socks off.
Like Soundcap™, the powerful yet uncomplicated sound digitizing program, by which you can record and encode new sounds for Studio Session use. SoundCap allows you to make instruments out of voices, noises, actual musical instruments, special effects. MacNifty also offers the digitizing hardware that translates the sound source into Mac-Usable files for Studio Session.

Now, click on the other "hidden library. Again, it appears fully active and visible. The other library window "loses" its active status as the narrow lines disappear, yet it stays in place, next to the newly-displayed library. And now we address getting rid of these two windows, so that we can get back to composing. It's easy...
Move your cursor onto an exposed portion of the Staff window. Now, click once. A brief flicker of the screen reveals the Staff window once again covering the two library window, and the "active" status signified by the reappearance of the ruled lines in the title bar.
As you look at the bottom of the screen, you'll notice that the playback control window is partly covered by the bottoms of the library windows. Move the cursor onto an exposed portion of the playback control window, and click once. This window should now be fully displayed. Now return the cursor to the Staff window and click on a portion of the window. You are now back to the starting state, ready to write (or play) music. Use this short-cut technique of clicking on windows to quickly move back and forth, as you gather resources and apply them to a song.

WE HEREWITH INVITE YOU
to peruse the rest of the manual.

It's organized as three main bodies of information, first a Player Features section, then an Editor Features (& operations) section, and last, the Appendices, with all the useful musical and technical goodies you might need (short of calling us via the MacNifty Hotline.) Refer to the Table of Contents in the front for specifics on each section and all the appendices, or browse on through.

THE PLAYER FEATURES

The screen and its features

After you have double-clicked on the Player icon at the Finder, the Macintosh will prepare and display the Player screen - which you've already seen.

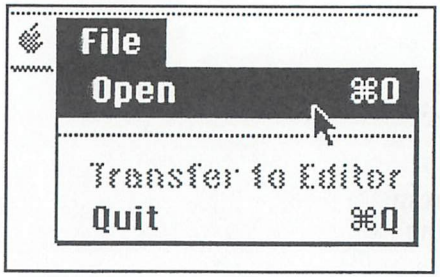
The operating features of the Player screen are drawn from a combination of audio cassette player with studio mixing board. All of the buttons and controls permit you to enjoy the playing of musical selections with the following options:

- ☐ Full play-through (loading and playing a selection)
- ☐ Play-through at louder or softer volume
- ☐ Play-through at differing tempos
- ☐ Play-through of all instrumental tracks, or
- ☐ Soloing of one track, or
- ☐ Play-through of selected instrumental tracks

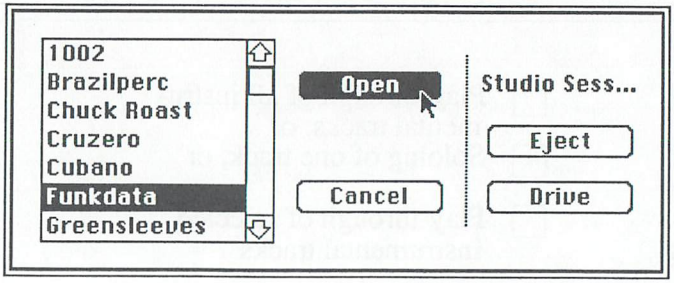
- all with the ease and logic of a portable cassette player.

TO FULLY USE THE PLAYER --

Having briefly demonstrated the basics of Player operation in the "Jump Start" section, this overview of the features will carefully detail all of the steps in a coherent sequence. Our aim is to reveal both the use and the logic of the features.



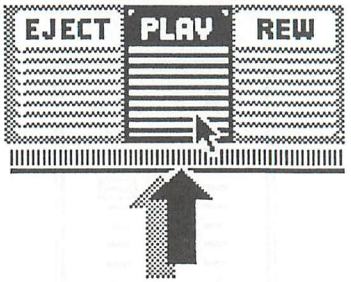
Before you start mouse-clicking on the Player controls, a musical composition and its instrumentation should be "loaded" into the Player - just as with an actual cassette player. To load a song, move the cursor arrow up to the Menu Bar, to the FILE Menu.



Click-drag down to OPEN and a Dialog Box will appear on the screen. Your choices of songs can be found in a combination of disks and files, so if the file listing box is empty, click on the DRIVE button and wait for another disk listing to appear.

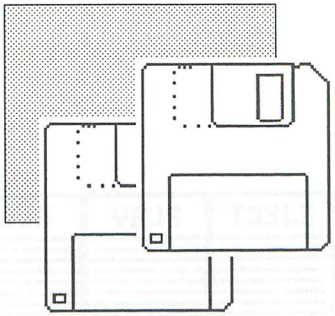
The songs will be listed alphabetically, and in order to find a particular song that is not visible, use the scroll bar to locate the song. Click twice on the song title (or, click once on the song title and then click on the OPEN button) and the song will be loaded into the player. When this is finished, the title of your composition will appear on the cassette label.

Click on the PLAY button at this point. This will initiate one more step, as we've outlined before. Instruments must now be loaded into the Player before the performance can begin. A new Dialog Box will appear on the screen and a message across the top will "ask" you to locate (and insert) an Instruments disk.

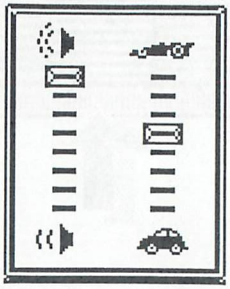


The Studio Session 3-disk package comes with all pre-recorded songs collected on the Program disk along with the Player and Editor. Instruments, however, are distributed over disks 2 & 3, (the "Music" disks) and this will mean some disk-swapping. After you have clicked on PLAY a Dialog box will appear and in the area above the Listing window, Studio Session will specifically "ask" for any of the up-to-six instruments it cannot locate on the disks already in the drives.

To load the instruments, follow the simple procedure detailed in the Player "Jump Start" section of the manual.



The more instruments that are employed in a particular composition, the more chance there is that you'll have to "swap" disks. However, swapping will be at a minimum, because Studio Session does NOT search for instruments in sequence (1,2,3,4,5,6...) but will gather instruments by scanning the listing on the disks (1,3,4,6 from disk 2, and 2,5 from disk 3). Loading a song should require only one disk "swap" - an ejection / insertion exchange.

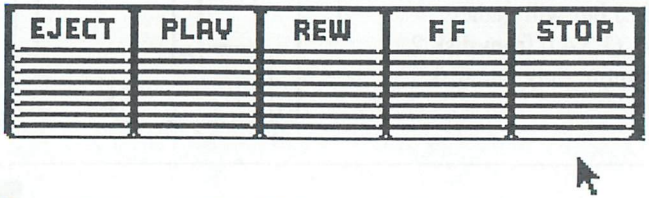


Now you can adjust the volume AND the tempo of the song by using the VOLUME SLIDE CONTROL or the TEMPO SLIDE CONTROL. Click/drag the "buttons" up and down the scales to experiment with re-setting volume and tempo values.

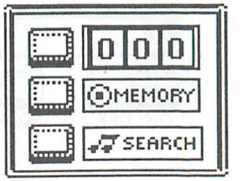
NOTE: When playing Studio Session through the MacNifty™ stereo, move the knob on the volume scale to the third notch from the bottom. This level is best for playing a song through your personal stereo. Remember, too, that there is a volume setting on the Control Panel, found as a "Desktop Accessory" option in the Apple Menu (the black apple silhouette.) Don't modulate the volume of the Player with that setting.

To interrupt the song for any reason, just click on the STOP button. Clicking on the Play button will continue the performance from where it was stopped. The REWIND and FF (Fast Forward buttons mimic the functions of their cassette player counterparts.

The EJECT button does little more than eject the disk located in the *INTERNAL* disk drive. (If no disk is present in the internal disk drive, the EJECT button will not affect the program or the computer.)

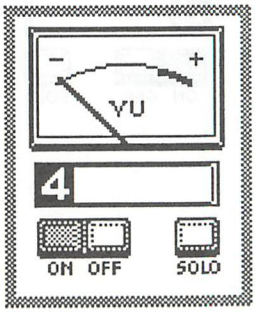


The MEMORY function is best utilized during the playing of a song. As you play a song (or a composition), you can click the Memory button at any point of the song (while it is playing) to which you would want to instantly return. At any point further into the performance, you can STOP the Player, and click on the REWIND button - which will automatically "rewind" to that point of the song where you activated the Memory of the Player, and start playing the song from that point. Clicking on the Memory button will store that particular location of the song until you Double-click on the Memory button, which resets it.

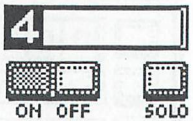


The SEARCH button will call up the Song file folder, and allow you to choose a new piece to load into the Player. This is a short-cut to loading the song by using the Menu Bar.

At the top of the Player screen is the row of OUTPUT Meters, which, in conjunction with the ON/OFF buttons beneath each meter, permit you to stop various tracks from playing.



The Output Meter's appearance during performance of a song mimics the monitoring meter found on many stereo cassette components. Each meter's needle flicks into action as its specific track contributes to the composition. Fortunately, the needle's vigorous motion does not mean that your song is playing at a distorted level of sound quality. They only signify the activity of that particular track.

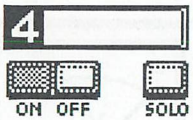


Below each meter is a pair of buttons, labelled ON/OFF. The color of the buttons signifies the operational status of that meter accordingly:

- the white button being "active" (or, ON)
- the grey button being "inactive". (or, OFF)

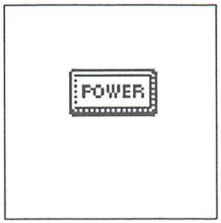
As you decide to experiment with combinations and reductions of tracks for a particular piece, you can click anywhere on either of the buttons and the meters will toggle On-Off, or, Off-On .

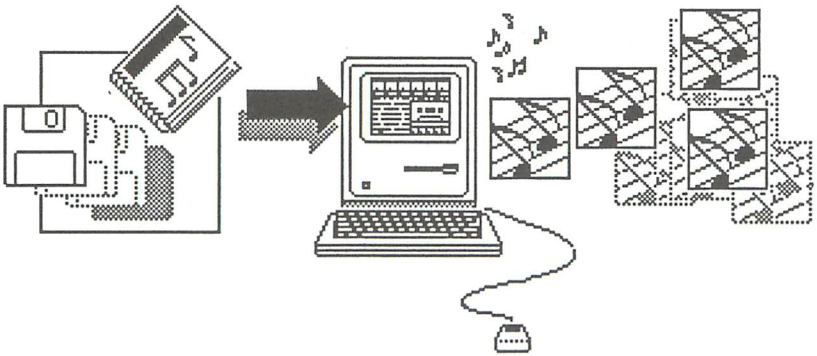
A SOLO Switch allows you to hear a single track, during the performance of a multi-part song. To audition one track only, first, click on PLAY and then just click and hold on the Solo switch for a particular track until you are through - or the song is completed. The Solo switch operates only as you "hold" it ON. The minute you release the mouse button, all the other track's voices will be heard again.



The numbered "blanks" sandwiched between the meter and the On/Off buttons display the name of the instrument assigned to that track, as the composition is loaded. For example, a quartet may play, with Track 1 initially reading bass drum, Track Two a hi-hat cymbal, Track 3 a snare, Track four a flute, Track 5 a guitar and Track six a bass guitar. As the piece is played, 32 bars into the music, the flute track (4) becomes a baritone sax, and the blank under the fifth meter will automatically note the re-assignment of that meter. If you want to hear just the guitar and woodwind track, you could click the grey OFF buttons for meters number 1,2,3, and 5, leaving 4 and 5 to play the piece as a duet.

When you want to conclude Player use, just move your arrow cursor down to the POWER button in the lower left corner, and click on it. This serves as a "mini-shortcut" around the sequence of click-dragging down on the "File" Menu to "Quit". The Player screen will then vanish and the Finder screen appear. The Studio Session desktop window will be open, and both Player and Editor icons present. If you are ready to go onto the EDITOR, double-click on the Editor icon. Now turn to the next chapter for a tour of the Editor.

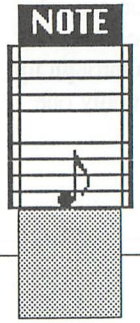




THE EDITOR FEATURES

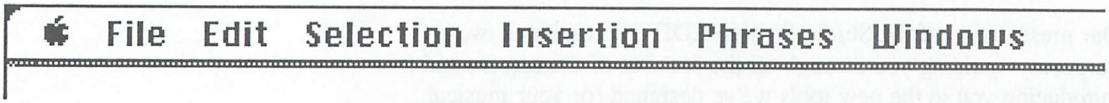
Our presentation of the Studio Session EDITOR combines two purposes - guiding you through all the features of the screen, and introducing you to the new tools we've designed for your musical pleasure. In our description of the tools, we'll give you an "operational" sense of what they are for -- that is, we'll not only name for you the command or option, but detail its use in composing or editing a song.

To review our earlier "Editor start-up" section, you would start the EDITOR program by double-clicking on the Editor icon, found at the Finder, and the Macintosh would quickly display the EDITOR screen, as was earlier illustrated. The Editor screen serves as a multi-function work surface, combining composition, editing and performing of your music - all in one large "window".

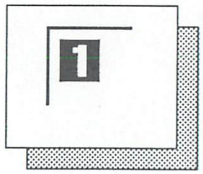


NOTE: We are using "window" as the term for a line-border enclosed area of the screen that permits you specific functions. Looking at the entire Editor display, at first glance you see four "windows" already present, two partly superimposed over two others. The Staff Window is the large work area that occupies most of the screen area, and the other three windows contain (1) the Phrase Library, (2) the Instrument Library and (3) the Play/On-Off controls. This procedure follows normal Macintosh guidelines, and as with Headers and Footers in MacWrite, you can "call up" certain windows by either Menu Bar commands or by clicking once on an exposed portion of an "obscured" window.

A visual tour of the features of the Editor would start in the top of the screen, where the Menu Bar is positioned. Here is the complete topical categorizing of commands particular to the Editor. Before we artistically pull down Menus for you, we offer an over-view of the Menu Bar.



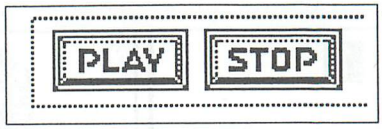
Each word ("File," "Edit," etc...) is called a Menu. As in the Player, you can "open" the Menus by Click-Dragging downward on the word. In the Editor Menu Bar, the first two menu headings offer commands familiar to Macintosh users, and the last four menus store the tools unique to Studio Session.



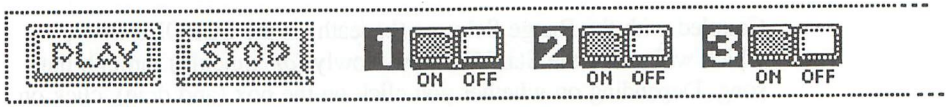
Moving down the left side of the screen, into the area of the Staff window, we come to the TRACK NUMBER which corresponds to the numbering of Output Meters on the Player screen. As you can only work on one track at a time, this Track Number will let you know "where" you are in the overall score.

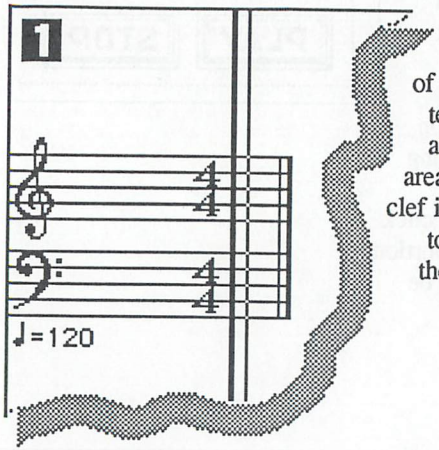
This numeric symbol indicates which track you are currently working on. As there are potentially six tracks in Studio Session, you can rely on this symbol to help keep "track" of where you are in the score. Though an OVERVIEW command exists to help you scan through up to six tracks for a general survey, you can functionally edit only one track at a time, and only in the Staff window.

The PLAY and STOP buttons start and stop your song, just as on the Player screen. Click once of the Play button to start, and click once on the Stop button to end a song and quickly return to the beginning of the piece, or to editing the song.
For future reference, there is a special constraint on the Play button that will permit you to hear only a section of a song, without having to audition the entirety. Specifically, when you select a section of song, using the Range Selector Bar (detailed further on,) you can click on the Play button, and hear just the selected portion. Once that portion of the song sounds "right", DE-select the portion so that you will be able to play all of the song.



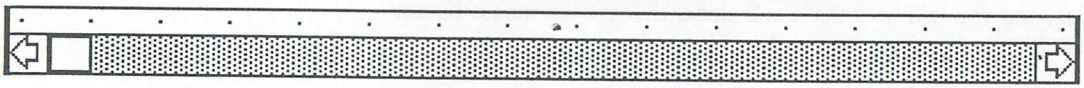
The six ON-OFF switches (partially illustrated here) at the bottom of the screen serve to isolate tracks during performance of a song. Each switch, as with the counterparts beneath the Output meters on the Player screen, is shaded dark when ON and white when OFF. To use these switches, click and hold on the ON button while the song is playing, and you will hear that track alone. Release the mouse button and all the other tracks will sound.





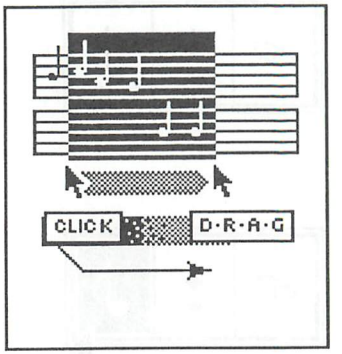
Below the Track Number begins the Musical Staff. This area of the screen remains constant, and here are recorded the key and tempo of a piece.When you begin editing, the staff for composing and editing will extend from the this permanent staff into the blank area to the right. The staff displays two clefs for notation; a Treble clef is uppermost and a Bass clef underneath. As illustrated, the screen to the right of the staff will be empty prior to loading a song into the Editor.

The RANGE SELECTOR BAR (the upper "bar" with the spaced dots inside) facilitates selection of a *RANGE* of notes - thus activating many editorial functions that are otherwise shaded out in the Menus. To use the Range Selector Bar, a song must be loaded into the Editor, which puts musical notations into the Staff Window.

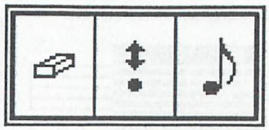


Coupled with the Range Selector (beneath) is the SCROLL BAR, which will move the Staff Window slowly (*or* quickly) through the song. Depending on whether you click on the box (and drag), click on the shaded area, or click-hold on either of the two arrows at each end, the speed of the scanning can be varied. The scroll bar in Studio Session mimics the standard Macintosh scroll bar, so you should be familiar with the use of this feature.

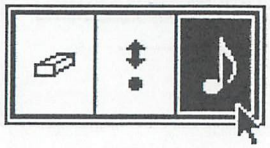
To *SELECT* a portion of the music for alterations requiring Menu options, put the arrow cursor into the area inside the Range Selector Bar beneath the starting point of the area you want to alter. Click-drag to the right or the left. The scroll bar begins scrolling the manuscript while the Range Selector *REVERSES* the manuscript portion you wish to alter. (The black lines and notes become white lines and notes, framed in an all-black field.) Release the mouse buttonwhen you have come to the end of the area you wish to edit, and everything you've Click-dragged remains SELECTED, until you Click-drag on a Menu option, and then click the cursor *OFF* of the selected area. If you change your mind or make a mistake during selection, you can undo the selection process by clicking the cursor once anywhere off the selected area. The reversed image will revert to the normal black-on-white display.



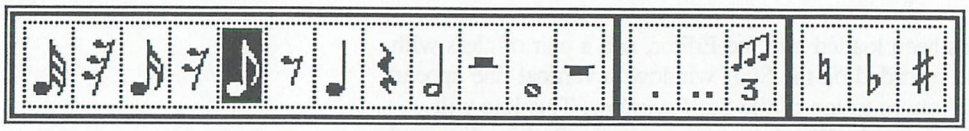
After a song has been loaded into the Editor, and a pair of clefs with full notation are recorded on the Staff window, a vertical line appears, extending from bottom to top of the Staff window. This line will "blink" - flashing on and off at the same rate as the flashing line at the end of a MacWrite sentence. Both flashing lines are called Insertion Points, and the Editor INSERTION POINT will allow you to insert, change, erase and more - wherever the insertion point has been placed. Use of the various options and tools will comclude with placement of the Insertion point where editing has taken place.



The principal tools with which you write or edit a song are collected in a "CURSOR tool box" near the left end of the scroll bar. Each symbol represents one of the three "notation" cursor tools you'll need - from left to right there are the Eraser, Bender and Music Note cursors.



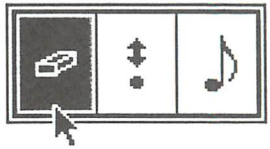
If the Staff Window is similar to musical notation paper, so the MUSIC NOTE CURSOR is like the pencil. Using the Music Note, you can place into the song any of the standard musical notation symbols displayed in the NOTE PALETTE, (shown below) located to the right of the Cursor Box. To use any of these tools, click first on the the Music Note cursor, then click on any one of the symbols in the palette and as you move the arrow cursor up onto the Staff Window, the arrow changes, as illustrated, into an eighth note.



To "write" that note, just put the Note Cursor on the specific line of a clef and click once. It will instantly appear in that location. At the start of a song, you will need to click initally on the Insertion Point, as there is no clef to otherwise click on. But as you create two clef's full of notation, you can click anywhere on the existing manuscript, without moving the Insertion point, and a note or rest will appear there, as will the Insertion Point. You are not bound to move the Insertion Point every time you want to add or change a note.

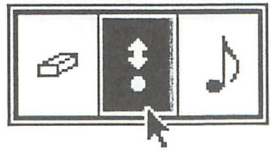
In order to change the *value* of that eighth note, move the cursor back into the symbols area and click on any other symbol. Move the music note cursor back onto the clefs and superimpose the new notation over the eighth note - and click once, again. The eighth note is automatically erased and replaced with the new notation.

The ERASER CURSOR removes any unwanted notations from the Staff Window. To erase a note, place the Eraser *OVER* the note, and click once. ("Rubbing," as in MacPaint, is not necessary for erasure.) For removal of a series of notes, a measure or more, you should use the Range Selector Bar to select all that you wish to delete, and then type on the BACKSPACE key once.



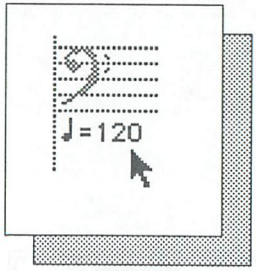
NOTE: If you realize you've erased the wrong notes, you can UNDO your erasure by moving the cursor up to the Menu bar, to the "Edit" Menu. Click-drag on Edit and select UNDO -- which, when you release the mouse button, should immediately restore all of the erased materials. BUT if you inadvertently clicked the mouse button after the erasure, you cancelled the UNDO function. Do not click the mouse button too hastily after an erasure. The measure you rescue from the trash may be your best!

After clicking on the BENDER CURSOR and moving the arrow onto the clef, you'll see the arrow cursor has transformed into the BENDER symbol. This tool allows the "bending" of a note both vertically and horizontally -- and your choice of directions will produce two singular effects.



If you position the Bender *ABOVE* or *BELOW* a note, every click of the mouse will skip the note up or down to wherever you have positioned the Bender on the bar.

If the Bender is placed *ON* the note, and the dragging motion is to the right or left, the note will lose or gain length in consistent increments. To drag to the *LEFT* will decrease the length of a note (a half note becomes a dotted quarter note) and to drag a note to the *RIGHT* will increase its length (a half note becomes a dotted half note). Dragging the note increases the length continuously; you don't have to re-drag the note for each succeeding step. Dragging *UP* or *DOWN* on a note raises or lowers the note's pitch by 1/2 step.



The *tempo* of a song can be changed with the TEMPO METER feature on the Editor screen. During actual editing, you can change the tempo of a piece (its speed in real time) by first double-clicking the arrow cursor on the illustrated area of the screen (below the Musical staff.) A dialogue box will appear that will guide you through re-setting of the tempo.

The "value" (number) already noted in this area is pre-set on the Studio Session program to be "120" - 120 quarter notes per minute. You can also use the "INSERT TEMPO" option, located with other INSERTION options in the Menu Bar.

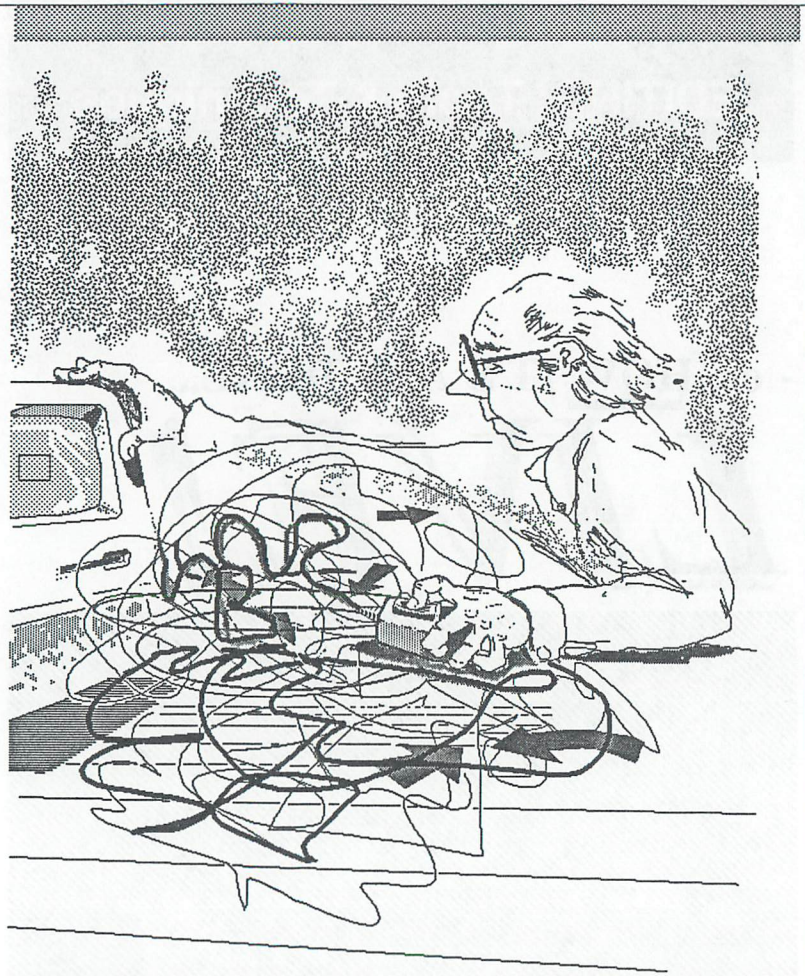
Further down the screen from the Tempo Meter are the ACTIVITY METERS - two blank boxes that provide invaluable aid during composing or editing. After cueing a song onto the Editor, and displaying the piece in the Staff Window, your choice of Music Note or Bender cursors will activate these two boxes. The left-hand box names the tool you've chosen, IE. "Bender", and the right-hand box will instantaneously track the *pitch* of a note you are about to place with the Music Note, or a note you are altering in any way with the Bender - whether bending, relocating or changing lengths of specific notes and rests.

FINALLY...

As with the Player, after the Play button is clicked, the machine may need to search the disk(s) inserted into the drives for the Instrument Library. The program will collect all the required instruments, and if it cannot find all that are needed, it will display an "alert" message asking for the location of your specified instruments. Insert both Studio Session "Music" disks (if required) and click on "ADD" for each disk. When the program has loaded all the instruments, the "hidden" Player will perform the piece as requested.
And remember: as you edit and re-play the piece, you will *not* need to go through the disk-swapping as in the first "PLAY" sequence -- all instruments have been already loaded into the computer's memory.

- or, HOW IT'S ALL DONE...

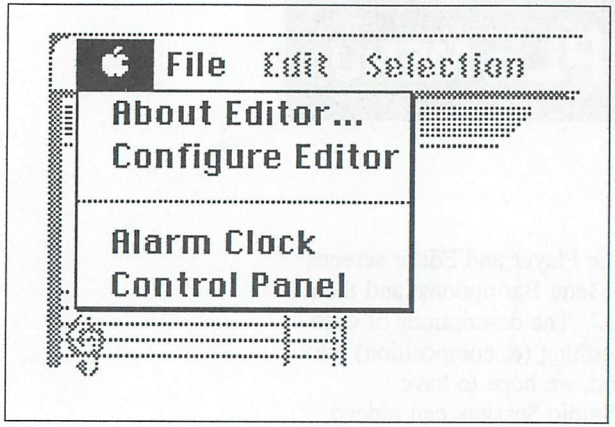
LIVE!



THE APPLE MENU

Up to this point we have mapped for you the Player and Editor screens & features. We now explore, in detail, the Menu Bar options, and their actual operations as Editor "support systems." The descriptions of each option will incorporate details about HOW editing (& composition) are enhanced by each specific feature. At the end, we hope to have conclusively convinced you that you, with Studio Session, can indeed slip into the computer, quickly reappear and begin to leap over tall symphonies in a single arpeggio.

As your first inquiry into the full-scale operations of the Studio Session Editor, immediately make a visual re-acquaintance with the Menu Bar, as displayed above and at the top of each page. The Menu Bar offers a listing of Studio Session operational categories.



During our Editor tour, we will open up and define all the Menu Bar items, from left to right. Initially, let's look at what lies hidden "beneath" the Apple Symbol, in the full Menu illustrated to the left.

About Editor...

For an entertaining surprise, "open" the ABOUT EDITOR option *AFTER* you have cued-up a song and then loaded all instruments into the Editor. The ABOUT EDITOR "works" best of all when a song has been fully set up in the Editor. The temptation to illustrate or even verbally describe the *ABOUT EDITOR* option is powerful, but the best "description" is to invite you to *PLAY* it. We offer that it is one "insanely great" bit of Mac Art & Animation. The form and content notwithstanding, "About Editor" also lists for you the names of the folks who composed, arranged and performed Studio Session™ (along with displaying an example of their sense of humor.)

Configure Editor

After activating the CONFIGURE EDITOR feature, Studio Session will display the Dialog Box illustrated here. With this box you can "configure," or, organize the editor to suit your preferences. Item by item, the options operate according to the notes on the following pages:

Select the user interface options:

- ☐ Play from insertion point.
- ☐ Move insertion point on Stop.
- ☐ Repeat Play.
- ☒ Track note position/function.
- ☐ Enumerate Measures
- ☒ Insert Measures automatically.

OK | Cancel | Set permanently

NOTE:
A click inside the box adjacent to each item will "activate" it, and an X will appear in the box.
To "de-activate" the option, just click once more in the box, and the X will disappear - signalling the inoperative status of the option.
The "X"-ed items in the illustration ARE also "X"-ed on the screen - these are the default, or pre-set configurations, which can be easily deactivated by clicking on the box.

Configure Editor — *WHAT ARE THE OPTIONS?*

Play from insertion point

Clicking the Play button with this option in operation will start the song from the insertion bar. Moving the insertion bar requires Clicking in the Range Selection Bar (above the scroll bar.)

Move insertion point on Stop

This option automatically moves the insertion bar to a point just beyond the last note played -when the Stop button is clicked. Use this option for correcting music by Clicking the stop button when a mistake occurs. The insertion bar will mark a spot just after the location of the mistake.

Repeat play

This option causes the selected range of play to repeat until the Stop button is clicked.

Track note position/function

(A "default" setting, already active when you start-up)

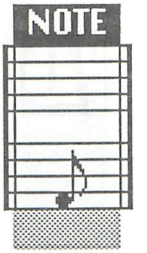
Choosing this option allows the insertion bar to continuously track behind the insertion of instruments, notes, and rests. If this option is deactivated, the insertion pointer will not track any additions of notes or instruments.

Insert measures automatically

(A "default" setting, already active when you start-up)

This option will automatically insert measure lines into the song. Measures are inserted based on the current Time Signature. Notes may be tied across measures automatically, sometimes causing a *FUNKY MEASURE* to occur. The funky measure visually resembles a dotted Measure line and contains a slightly greater note value than that which should be allowed in that measure. If you find a Funky Measure in the song, double-check for mistakes (*UNLESS* you actually planned for it to occur.)

NOTE: One minor (but constant) inconvenience of the autobarring feature defined above - It assigns the first music symbol it finds to the *FIRST* beat of the first measure. To compensate for this tendency, we offer this: If, for example, you write a piece in 4/4, and begin with a pick-up on the fourth beat, you should insert three quarter rests *BEFORE* your first note. The program will count the rests and pick up your melody where you intend it.



Below the configuration checklist of options are three control buttons:

OK
Clicking in this box will signal to the program to implement the changes you have made in configuration (or Re-configuration.) The program will automatically adjust and re-display a fully-configured Editor screen.

Cancel
Clicking in this button will cancel the changes you may have just made and return to the Editor, as originally configured in the start-up.

Set permanently
Clicking in this button will establish all changes you have made, save them as the "default" (Start-up) options, and then return to the Editor screen. The next time you start Studio Session from the beginning, the Editor configuration will be set according to what you have just "permanently" installed.

NOTE: "Permanent" lasts for as long as you choose to operate within that configuration. The next time you reconfigure, and choose to make it permanent, click on this box again, and a new "Permanent" order will be established.

THE FILE MENU

INTRODUCTION

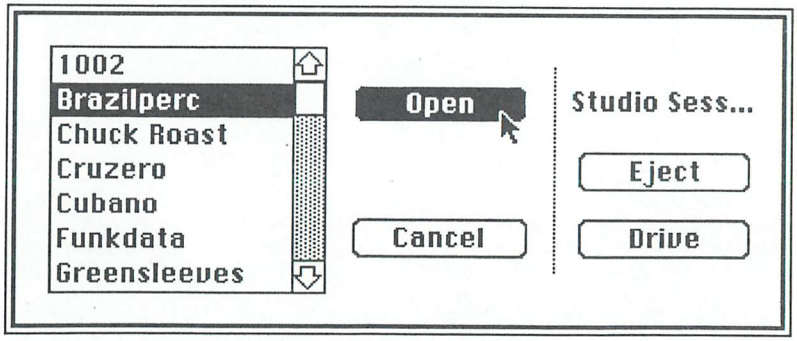
This Menu contains options recognizable from other Macintosh programs. The great majority follow what is called the "Standard Macintosh Interface" - if you know how to "Save," or to "Print" - as done in MacWrite or MacDraw, you are already in command of the operation of these items. In the case of Studio Session, your "saves" will create and permanently form a File that contains all the information for a musical composition. Printing your File will create a score featuring all six tracks, with instrument assignments and all notation exactly as you created it on the Staff window. Remember that as we noted earlier, there is no Printer Driver file on your Program disk. See the Appendix in the rear of the manual for detailed help in printing your song manuscript.

New

Choosing the "New" option will create an "UNTITLED" screen which incorporates, once you start to write a song, the automatic option of saving your work (a Macintosh "fail-safe" feature) if you accidentally try to close it before creating a song file. If you accidentally write a brilliant etude or come up with a hot melody, the program won't let you inadvertently dump it.

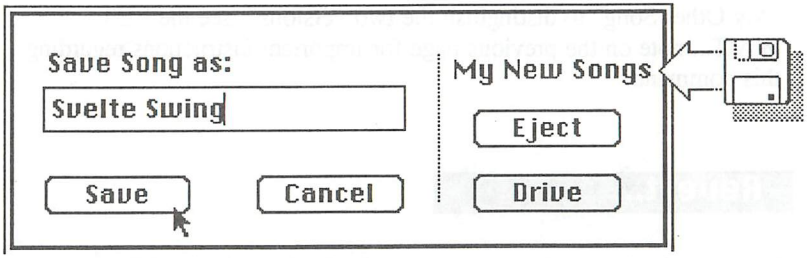
Open Song... ⌘O

Choosing this command will display this illustrated Dialog box. Choose your preferred working manuscript by double-clicking on the song title or clicking once on the song title and clicking on the OPEN button. After this sequence, the song file will be loaded into the editor, and the "UNTITLED" listing will be replaced with the song's title. For playback, you will need to install the Instrument disks, as detailed in the Editor "Jump Start" section of this manual.



Save Song

Once you have created a song that you wish to SAVE, choose this command and the song will be recorded onto the disk as a File. If this is a new song, never filed before, the Dialog Box here illustrated will appear, allowing you to name the new composition before saving it. If the song you are saving is a song that has previously been opened, no file name will be required. The Save option will merely update your changes and additions to the existing file.



BUT WAIT... An important consideration is whether or not you have room on your disk to store the song. Assume that you do not have room on any of the three disks (a very safe assumption!). Consider creating a "Song Files" disk, and then follow these steps. In this Dialog Box, click on Drive (if you have two drives to work with) until you can click on Eject and remove the disk in the *SECOND* (outside) drive unit. Insert the Files disk, and wait untiL its name appears in the space above "EJECT." Now you can type in a name in the box (like "Svelte Swing") and then click once on the SAVE button. The song will appear on the file disk. File disks give you room to write more new songs and extend older songs. Consider moving the file of Studio Session songs onto that file disk, so that you have every related bit on one disk.

Save As...

This command will allow you to open a "NEW" untitled file and save all your work under a specific file name. You can also use this option to save alterations of a song under a different name. The Dialog Box here shown is the same one you will employ in this option. This feature allows you to have two versions of the same song resident upon the same disk. This feature is useful when experimenting with different instruments and arrangments of music. A suggestion: If you have named a song "My Song", you may want to name an alternate version "My Other Song" to distinguish the two versions. See the BUT WAIT... note on the previous page for important instructions regarding this command.

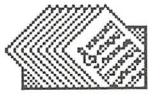
Revert...

If you made changes in a song presently displayed in the Editor, you may REVERT to the last "saved" version of this song by choosing the REVERT option. Revert quickly undoes a quantity of problems or ineffective arrangements, without voiding the original composition. Note: this feature is valid only when you are working on an existing song file - a song you have previously saved, or have just saved as a file. Unsaved song files will not revert to the "previous" format, as they haven't had a previous existence as files. Revert could be considered a type of global "UNDO" command, or an accessory to the real UNDO command option located in the EDIT Menu.

Page Setup...

This box will supply you with various options for determining the format of the printed page. Depending on whether or not you have created a "Print" disk, and the additional qualification of which Finder and System files you use to print with, you have several options for page layout. We suggest you start with the "portrait" or "tall" format, and print with the Imagewriter. Experiment with the "landscape" or "wide" format afterwards. Six track compositions are most successfully printed in "tall" format.

Print...



The print box will allow you to PRINT out the complete score of your song, whether it contains only one track, or up to six. You can use two types of output in terms of the quality of print: "Standard," which will always print faster but with less quality, and "High quality," which will take the longest to print, yet yield the cleanest, most repoduceable quality output. We suggest reading the Appendix on printing manuscripts, at the back of this manual.

Transfer to Player

This option in the file menu will allow you to transfer directly to the Player and exercise its options as described in the earlier sections of this manual. If you have made any unsaved changes to your song you will be asked, before the transfer is effected, if you wish to save any changes that have been made. Click on the OK button in the Dialog box and the changes will be saved. At this point the exchanging of screens will take place. Playing your song through the Player affords you the sense of performing the finished product in high style - but no additional benefits come with the Player. It's just darn fun to do it, though!

Quit ⌘Q

Select QUIT when you wish to return to the Finder and get back to work on those nagging spreadsheets. If the song has been worked on, you will be asked if you wish to save the changes that have been made before the program exits the Editor screen. In the Dialog Box, you will be able to choose three options:

••• Click on YES and save the latest changes to the song manuscript

••• Click on NO and erase just those most-recent changes (while filing the last-saved version of the song)

••• Click on CANCEL and to continue on in the Editor for other work or other filing functions.

THE EDIT MENU

INTRODUCTION

The EDIT Menu, like the File Menu, contains options duplicating those in many standardized Macintosh applications. The first five commands exactly parallel those in other applications, and the remain-ing options are unique to Studio Session - yet are as intuitively easy to learn and use as others out of the basic Macintosh "user interface" opera-tions mold. Going through the EDIT Menu from top to bottom, we have detailed each command in the next few pages.

Edit

Undo	⌘Z
Cut	⌘K
Copy	⌘C
Paste	⌘V
Clear	
Erase Track...	
✓Edit Track 1	⌘1
Edit Track 2	⌘2
Edit Track 3	⌘3
Edit Track 4	⌘4
Edit Track 5	⌘5
Edit Track 6	⌘6
Change Instrument	

Undo ⌘Z

In programming Studio Session we have made every attempt to let you UNDO any command that is potentially a "destructive" command. Commands that are destructive would irrevocably erase, cut, paste, clear, or erase a track -and leave you in great confusion and distress, ready to fling disks and Mac into the trash (can, not icon.) In the event that you want to recall the last operation that you have performed, check to see if the Undo item is hilighted - readable as **Black** type, not as gray "shaded" type). If it is black type, you can *UNDO* your mistake by selecting that option. The erroneous operation is replaced by the previous material, completely intact. If *UNDO* is still in shaded type, you can't recall that last operation. The Undo command, when activated, will read "Undo ....." (followed by the item that can be undone -IE. "Undo Paste," "Undo Cut.")

NOTE: Undo can only undo the LAST action you took. If you erased a Track, and inadvertently clicked the cursor on some other operation or area, you have cleared the memory of that last step, and the Track is thereafter erased. If you wrote that accidentally-erased track SINCE you last saved, you won't be able to use Revert to recall the lost material. Our suggestion is to *SAVE* at a regular rate (every fifteen minutes... or more frequently, if you are really concerned.)

Cut ⌘X

Removes or erases any notes, instruments, or other items that you have selected and puts the excised materials temporarily in the Clipboard - where they remain until your next Cut or Copy. If you CUT a portion of manuscript and decide to replace it where it had originally been, just put the Insertion Point where you had originally written the material, and select PASTE from the Edit Menu. NOTE: If you have not cut, copied or cleared since that first cut operation, you will find the material immediately pasted back into position. If you have cut, copied, or cleared subsequently, and you want to undo that earlier action, the latest EDIT actions will prevent you from restoring the lost material.

Copy ⌘C

Copies a phrase, note, or other material you have SELECTED (leaving the original in place) and places that material into the Clipboard, where it remains until your next Cut or Copy. The difference between Cut and Copy is only that Cut removes, while Copy "clones" or duplicates what you've selected, leaving the original intact and in place. Remember that the next time you cut or copy, the previously cut material will be erased from the Clipboard. If you want to retain and re-use that copied material, we suggest that you SAVE AS A PHRASE (an option found in the Selection Menu), which is fully as permanent a storage "facility" as opening up a File.

NOTE: There is no Scrapbook within Studio Session. If you want to store a melodic line or special effect for repeated use, store it into the PHRASE LIBRARY - our super-Scrapbook. See the chapter on Phrases Menu for details.)

Paste ⌘U

Puts a copy of whatever has been stored in the Clipboard into the manuscript, where the Insertion bar is located. If a section of material has been SELECTED, (a portion of the song click-dragged) that section will be erased automatically and the Clipboard contents will be pasted in its place. Such an action can be reversed by UNDO option use.

Clear

Removes SELECTED material and bypasses the Clipboard. You can erase material by selecting it and then typing once on the Backspace key. (UNDO will save any material accidentally wiped out by any Clearing actions.)

Erase Track...

You may erase any combination of tracks or all six tracks with this option. Without selecting any material, just open the EDIT Menu, and select this option. You will be presented with this illustrated dialog box. To erase one, or any combination of tracks, click in the box next to the track number you wish to eliminate and an X will appear in the box. However, should you decide not to erase any tracks, click in the Cancel button. To complete the erasure of the tracks you have chosen, click in the OK button, and the tracks will be completely erased.

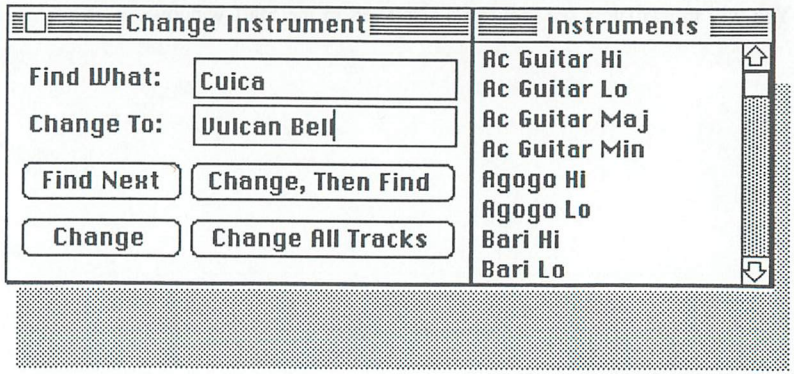
✓Edit Track 1 ⌘1

Moving through the complete musical score in order to edit different tracks is facilitated by selecting EDIT TRACK 1 (thru 6) - after which that track will appear in the Staff window. This is, in effect, your "channel" selector box, giving you instant access to any track with a "click" of the mouse switch. For an explanation of the option giving you a general overview of all the tracks grouped together, turn ahead to the WINDOWS Tutorial, and read the SHOW OVERVIEW notes. This particular option supports your actual multi-track working mode; the Overview, while giving you a chance to play and see the entire piece, does not permit any editing to be done on the manuscript.

NOTE: a handy short-cut allows you to by-pass the Menu Bar as you switch "channels." Hold down the Command (Cloverleaf) key and type once on the number key of the track you want to work on (1 through 6). You will immediately see that track displayed in the Staff window.

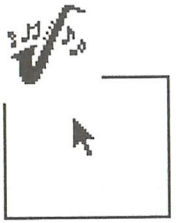
Change Instrument

Allows you to Find and Replace Instruments much like the Find/Replace in MacWrite or other word processors. To find an Instrument you can either type in the Instrument name or click on the Instrument name in the Instrument Library Dialog Box to the right of the Change Instrument Window. The Instrument name will appear in the "Find What:" box. If you wish to change this Instrument to another name, either click in the "Change To:" box or press the Tab key and then enter the Instrument name as you did for the "Find What:" box. Another way of selecting an Instrument to find is to select that Instrument in the Staff and then select Change Instrument. The instrument you selected will automatically appear in the "Find What:" box. This feature can be adapted in four ways:



Find next...

This function would be used to locate the next application of the instrument listed in the "Find What:" box. This may be quite useful in a very long composition where finding and assessing the many applications of a particular instrument may be otherwise quite difficult or time-consuming. You will be immediately moved to the next location of the instrument name you insert in the Dialog Box, and after you click on the "Next" button, you will be posted to any further location, one location at a time



Change then find...

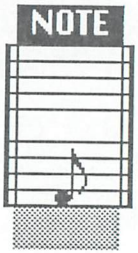
This function will find and change the first occurence of the instrument listed in the 'Find What:' box and then move through the score to the next occurrence of this instrument, as you click on the "Next" button.

Change...

This function will change the currently-selected instrument in the Staff window from the present assignment to the instrument name you note in the "Change To:" box.

Change All...

This function will find **all** occurences of the instrument in the "Find What:" box and change them to the instrument listed in the "Change To:" box. Change All will find and replace all instances of a particular instrument in all six tracks - with no exceptions. If you do not want to globally change all cellos to whistles, use the Change, Then Find... command.



NOTE: In this Menu, as in the others, you will find many options accompanied by the cloverleaf Command symbol, next to a number or letter. This will introduce you to some very handy features built into the Macintosh, all under the category of Keyboard Option Command Strokes. (Also known as "FKeys", or Function Keys) That bit of purple techno-prose means that you can use quick keyboard sequences that will save the trouble of moving the cursor hither-and-yon on the screen and clicking buttons and features with lots of wasted motion. For, as wonderful as icon-based programs are, keyboard commands are a quality touch that speeds certain operations up greatly (and make you feel like a Virtuoso at both music *AND* computing.) For those options accompanied by keyboard stroke equivalents, just select a portion of the song (or click the Insertion bar at the location) and type the two or three keys and move on to the next operation.

THE SELECTION MENU

INTRODUCTION

Within the command options you can choose out of the SELECTION Menu are two general operations: grouping notes together for special effects, or grouping certain noted elements into "phrases" -and recording them into the main Studio Session Phrase Library for further use. All of the options of SELECTION are activated by SELECTING a portion of the manuscript, as shown in the sequence illustrated on the next page. After grouping notes by that selection process you can alter the notes as a group (or save as a phrase) according to the commands in the Selection Menu. Looking at the Selection commands in order, we first come to "TIE."

Selection

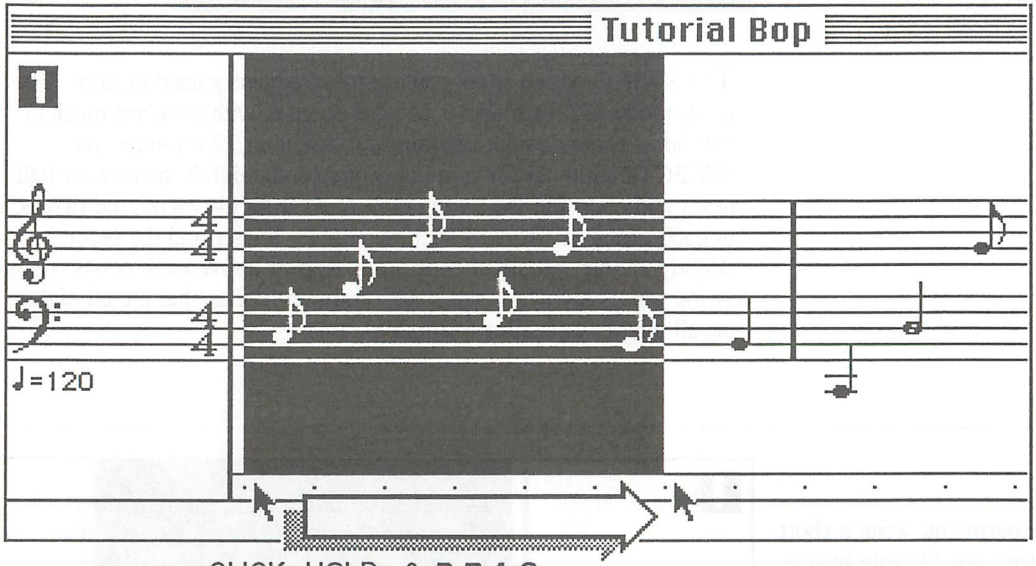
Tie	⌘T
Swing	⌘S
Repeat...	⌘R
Change Repeat	
Transpose Up Octave	
Transpose Up Half Step	⌘U
Transpose Down Octave	
Transpose Down Half Step	⌘D
Save As A Phrase	

Tie ⌘T

To "tie" notes is to join them together to create one sustained tone. A series of notes of the same pitch - which are tied together - will become an elongated sustain (tone) or hold (rest). The use of ties has the greatest effect in creating notes larger than those available in your note palette. Interesting effects are achieved through some "experiments" in tying notes. For example, when notes of different pitches in the staff are tied together, the melodic line will be played with no breaks between notes. A tied series alerts the Studio Session player to *not* re-attack each note, and the listener will not hear the repeated attack (beginning) and decay (end) of each note in the sequence.

Special effects can be generated with ties that will embellish your composition and enhance the overall sound. Experiment with a simple scale of notes, say eight or ten notes, tied together as one unit. Place your favorite instrument at the beginning and click the Play button. You should hear all of these notes run together as though they were one long note of a unique audio quality. (Sirens can be mimicked with tied ascending and descending scales of notes.)

ALERT: Tying will only sustain notes that are "looped back" - a special feature in the memory function assigned to the notes. Notes without this memory function will decay and end, despite being tied in the manuscript. For a specific listing of instruments assigned the loop-back function, please look in the Appendices for the "Instruments" tables.



CLICK.. HOLD.. & ***D R A G***....

Many of the commands you will exercise as you compose require that you *"SELECT"* the portion of your song that you want to save, alter, repeat, etc. The artwork above shown is hopefully worth the omitted nine hundred and forty-seven of our well-chosen words, on the subject of HOW TO SELECT.

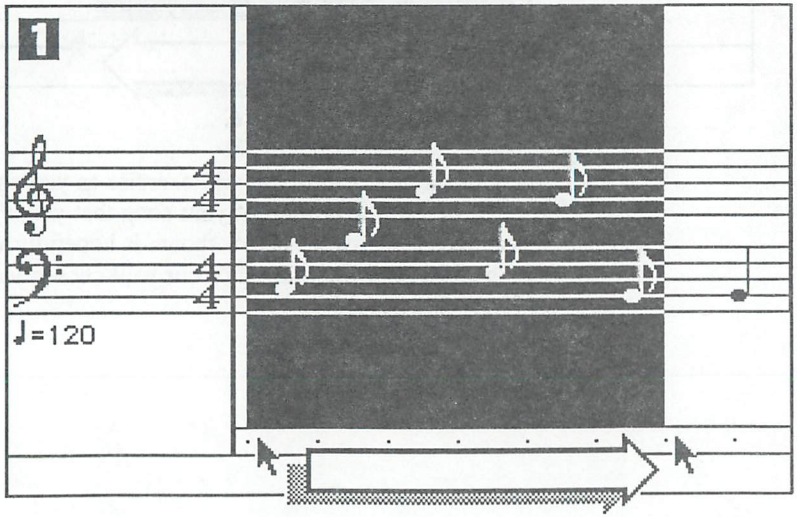
Swing ⌘S

The SWING option is an accent most frequently used in Jazz. The usual mode in Jazz music is to take liberties with standard musical notation, some of such liberties are unwritten, like swing. By SELECTING an *EVEN* number of sixteenth, eighth, quarter, or half notes and choosing the Swing command from the menu, the first note in each group of two will become slightly longer and the second, slightly shorter. A small L or S will appear above each newly-assigned swing note. Always select *pairs* of similar notes (that are all eighth, or, all quarter notes, for example).

1.

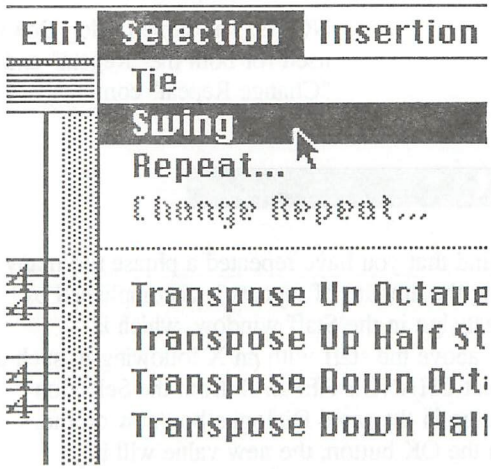
As an experiment, write a short melody for your favorite instrument, using 8 eighth notes.

Now select all the eighth notes, as illustrated to the right.



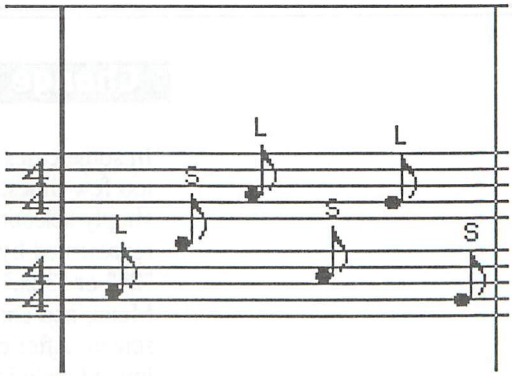
2.

After selecting, choose the SWING option from the Menu...



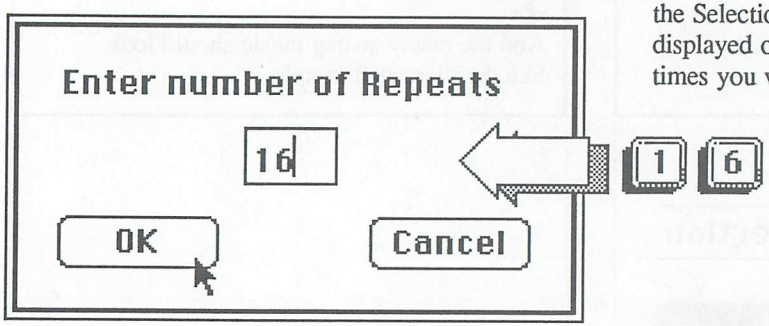
3.

And the newly-swung music should look like the illustrated sample.



Repeat... ⌘R

Musical composition often depends upon repeats of "phrases" of music. This can save vast amounts of time and energy in songwriting. In order to accomplish this, select the portion of the song that you want to re-use throughout the piece. Then click-drag to the REPEAT command in the Selection Menu. In the Dialog Box that is displayed on the screen, type the number of times you wish this phrase to be repeated. Click on the OK button to activate repetition of the phrase.



NOTE: The same Dialog Box is used for both the "Repeat" and "Change Repeat" commands.

Change Repeat

In some cases you will find that you have repeated a phrase too many or too few times. Correcting the amount of repeats is accomplished by simply selecting the repeat sign in the Staff window, which is represented by a number above the staff with an X following it, such as "2x" or "32x." Now select CHANGE REPEAT from the Selection Menu, and change the value in the same Dialogue box now on the screen. After clicking on the OK button, the new value will be immediately in effect.

Transpose Up Octave

This option physically and musically moves a selected range of notes up one entire octave. All items other than notes are ignored. By using the transpose functions you can quickly create a new phrase by simply changing the pitches of an existing phrase.

CAREFUL!: Certain notes at a high pitch will stop at the pitch "ceiling", and thus won't go up an entire octave. You will be able to tell which notes did not complete the shift in the performance of the piece, because something won't sound right. Be sure to click on the Play button for that selected-and-transposed selection - WHILE it is still "selected." If it doesn't sound right, you'll know that a note or two "topped off" - and you can transpose back down an octave to restore the section to the original state.

Transpose Up Half Step ⌘U

This option, similar to the above-noted "octave transposition", moves a selected range of notes up one half step. Follow the same steps, with the exception of selecting this option from the Menu.

Transpose Down Octave

This option, similar in operation to "Transpose Up Octave," will move a selected range of notes **down** one octave.

Transpose Down Half Step ⌘D

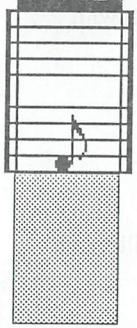
This option, similar in operation to "Transpose Up Half Step," will move a selected range of notes down one half step.

Save As A Phrase

This function of Studio Session can be thought of as an alphabetized and organized permanent "Scrapbook." Through this option you can change and create complex compositions very quickly. If you have created a few phrases that you wish to employ in other songs, even in different variations, simply select the range of notes that make up your phrase and from the Selection Menu, choose SAVE AS A PHRASE.

--- *CONTINUES ON NEXT PAGE* ---

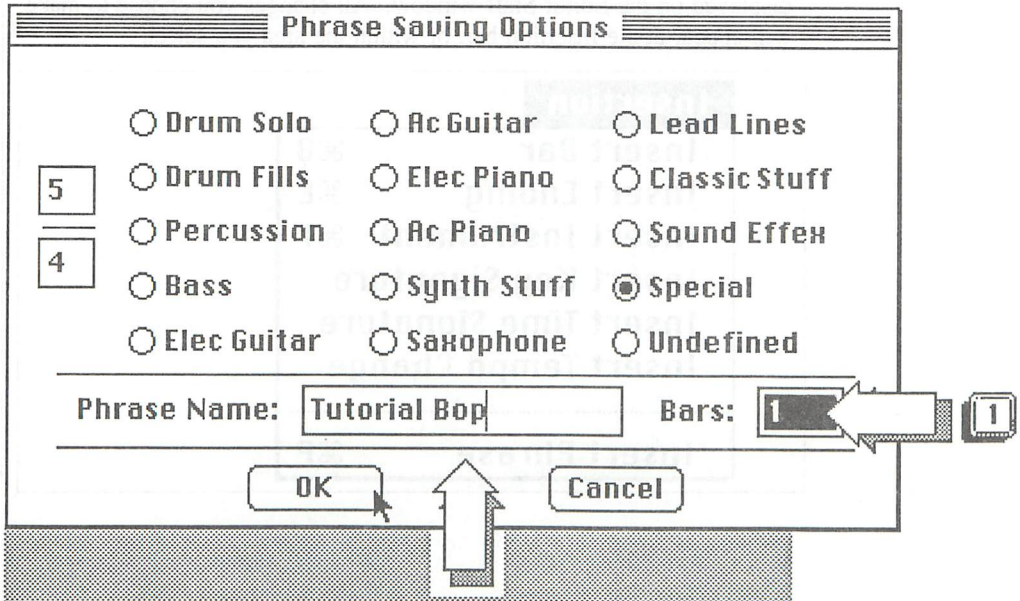
NOTE



NOTE: Phrases are saved into the Phrase Library, but without the starting tempo and key signature established in thier original context. Thus they assume the Studio Session default values of a tempo of 120 quarter notes a minute, and the key signature of C major, until inserted into a song. To build a song with a phrase, be certain to set tempo and key signatures before pasting a phrase in. The phrase will then conform to the new values.

--- CONTINUED FROM PREVIOUS PAGE --

In the Dialog box that is displayed, you will be able to assign a name to this phrase and specify its type and style. Afterwards, click on the OK button, and the Phrase Library listing should immediately reflect the new addition. Now you have begun a library of phrases for your further application. The Phrase Library window, hidden behind the Staff window and the Track button window, will display your phrase along with the other pre-existing phrases supplied with the program. To create a specialized Phrase Library, adjunct to the main Phrase Library, turn to the Phrases Menu chapter for details on that operation.



THE INSERTION MENU

INTRODUCTION

The commands of the INSERTION menu operate both directly on the manuscript (requiring no use of Dialogue boxes) and via Dialog options that allow you to specify certain values for the changes you wish to make. Reminder: the shaded (gray) letters represent inactive commands, which activate when you SELECT a section of the song currently displayed on the Editor Staff window. All changes you choose to make will appear at the Insertion bar, or within the area you select.

Insertion

Insert Bar	⌘B
Insert Ending	⌘E
Insert Instrument	⌘I
Insert Key Signature	
Insert Time Signature	
Insert Tempo Change	
Insert Phrase	⌘P

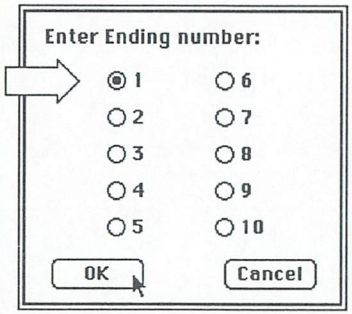
Insert Bar ⌘B

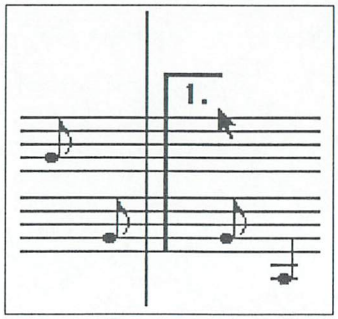
INSERT BAR will divide a series of notes into what is called a measure. To break up a specific series on the clef, first click the Insertion bar at the point where you wish to end a measure (or begin a new measure). Select "Insert Bar" from the Insertion menu, and the newly-inserted bar will visually appear as a dark vertical line placed on the staff. This line now represents a Bar, or, a division of measures.

NOTE: to activate "Insert Bar", Turn "Autobarring" option OFF in "Configure Editor" -- found under Apple Symbol

ALSO: A bar is HELPFUL for organizing different musical scores, but is not NECESSARY. If you have chosen to have automatic insertion of bars, (an option found in "Configure Editor") this item will not be highlighted in the Insertion menu.

Insert Ending ⌘E





Endings are a form of musical shorthand that facilitate re-use of part of a song and alter the end of it. To insert the ENDING symbol at certain places in the manuscript will allow you to denote specific endings for each repetition . As endings can only exist within repeats, you are limited in the number of endings by the number of repeats. For example, if your section has a "2x" at the beginning, you can designate only two separate endings.

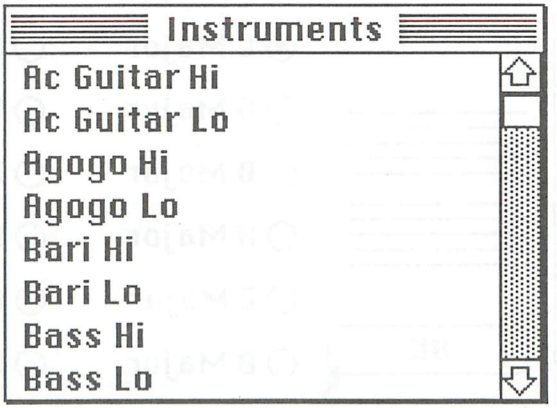
To insert an Ending, click the Insertion Point marker into the location, as illustrated, and then click-drag on the INSERTION Menu to the menu option "Insert Ending". Choose the specific ending number, and click that number, then click the OK box. What you will see next is illustrated here.

For the second, third, etc. endings, move the Insertion Point to the next ending location and re-open the Dialogue box with the same Insertion Menu option. You will note that every previously-assigned ending number will be "gray" type, or Inactivated. Click on the next active number in sequence and then click on the OK button.

Insert Instrument ⌘I

After you've clicked the Insertion Point at a specific location on the staff, using this command will facilitate the placement of any instrument into that location on the track. You can scroll through the Instrument listing and shift-click on the name of the instrument you want to add to the composition - which will result in the insertion of the instrument into the manuscript. Or, click on the instrument name and click on ADD and the program will automatically place the new instrument into your song at the Insertion Bar.

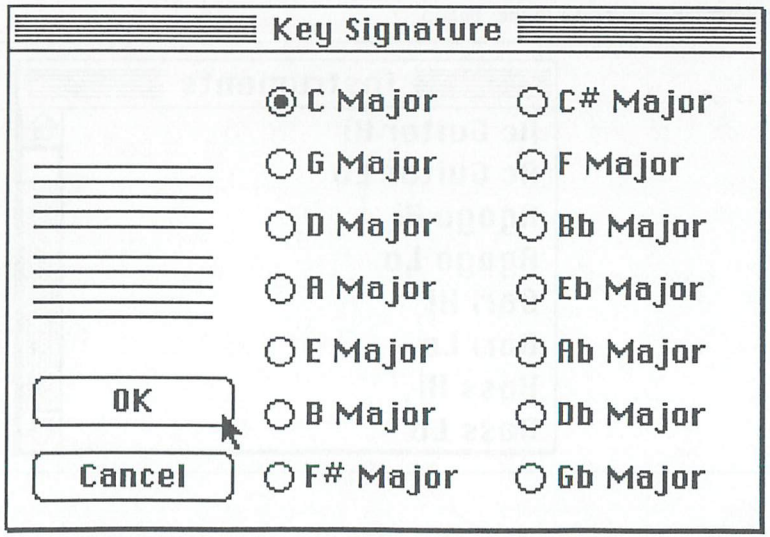
NOTE: An alternate (short-cut) method of inserting an Instrument is to Shift-Click on the instrument in the Instrument Palette -which bypasses moving the cursor over to the button.



Insert Key Signature

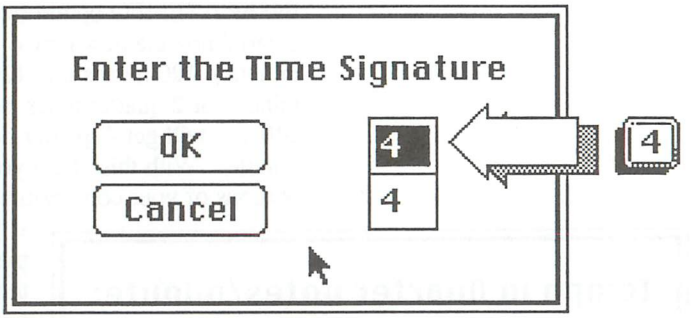
The key signature, set originally at the beginning of the song, can be altered anywhere in the song. To re-key the composition, click the Insertion bar at the point where you want the song to change keys, and then select the INSERT KEY SIGNATURE option from the Menu. The key value is reset by assigning new values in the Dialogue box, and from the Insertion point onward, the song plays in the new key. With this option, you can assign different Key Signatures to different tracks at different places.

NOTE: The purpose of a Key Signature is to create major (or minor) scales from a certain set note. If there is, for example, a # (Sharp) on the F4 line in the signature, *ALL* F's written in the composition will sound as F#'s. To alter any (or all) F#'s, you must use an accidental (from the ACTIVE NOTE Window) to create an F natural or F flat. Also, accidentals must be restated in *every* instance where you want a change... even within measures or ties.



Insert Time Signature

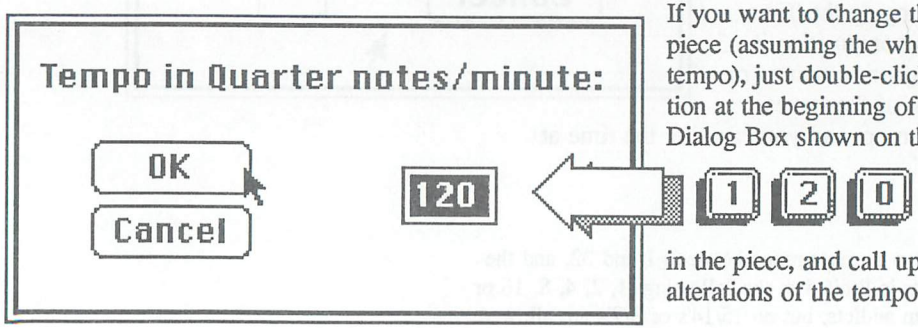
This command serves to change the Time Signature either for the entire song, or at particular points in the song. As with Key Signatures, different Time Signatures can co-exist in different tracks in different places. Click the Insertion bar at the point on the track where you want to assign a new Time Signature, and then select INSERT TIME SIGNATURE from the Menu. The Dialogue box records the new time signature you wish to insert and after you click on the OK button the new value is immediately in effect from that point onward. To change the timing for the whole song, you would click the Insertion Point at the very beginning of the composition, then follow the above-noted steps. A short-cut to changing the Time Signature for your entire composition is to double-click on the signature written on the clefs at the beginning of the staves. The Dialog Box will open up, and you can alter the time at your discretion.



NOTE: The limits of the top number range between 1 and 32, and the range of the bottom number is limited to the following: 1, 2, 4, 8, 16 or 32. We're sorry, polyrhythm addicts, but no 15/14's or 8/7's are allowed.

Insert Tempo Change

The speed at which your song is played is a value that can also be changed. The tempo can be changed for both small and large increments of your composition. As with previous insertion options, this change is effected by clicking the Insertion bar at the place where you want the tempo to change. After this, you would next select the INSERT TEMPO option from the Menu, and enter a new value, thus determining the new tempo (how many quarter notes are played in one minute.) 120 means that 120 quarter notes will be played in one minute, or 2 quarter notes per second. If you increase this number to 240 you will get 4 quarter notes per second and 240 quarter notes per minute. With this effect you can speed up (or slow down) certain portions of your composition.

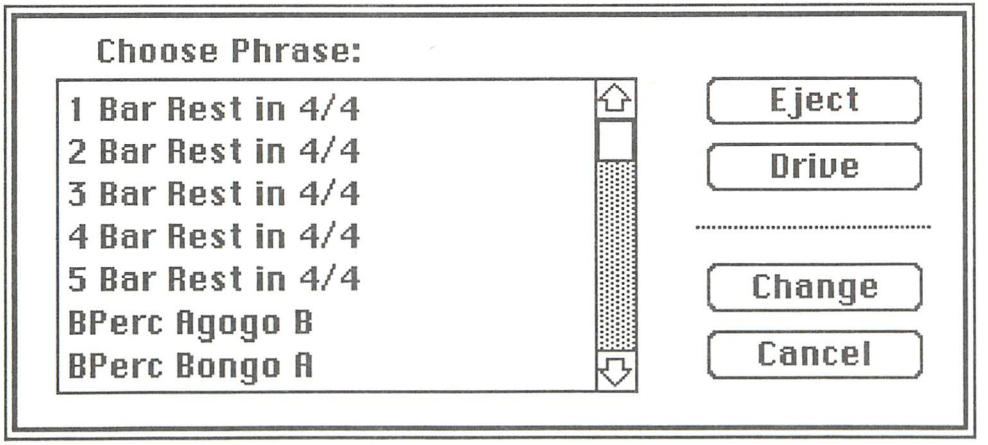


If you want to change the tempo for the entire piece (assuming the whole piece is at one tempo), just double-click on the tempo notation at the beginning of the staves, and the Dialog Box shown on this page will appear. You can also double-click on any tempo marking at any place in the piece, and call up the Dialog Box for alterations of the tempo at that point.

NOTE: The tempo range lies between the low end of 10 and the high end of 450.

Insert Phrase ⌘P

To insert a Phrase into the manuscript, click once to set the Insertion Point at the location in the measure where you want to augment the song with "outside materials" from any Phrase Library. Then click-drag the Menu to this command, and the above-illustrated box will appear. Choose your addition by name and then click on CHANGE - OR, shift-click on the phrase name - and the new phrase will be written into the score automatically.



THE PHRASES MENU

INTRODUCTION

As a "data base" of phrases, the Phrase Library stores (as files) any combination of notes, instruments, tempo changes, key changes, time changes, ties, and anything else that you can select from the manuscript with the mouse. Some examples of "phrases" are: a drum fill, a bass track, a saxophone solo, a rhythm guitar pattern, etc.. The Phrase Library can contain all of these phrases, combinations thereof, and much more.
(Your only limitation might be disk space)

The phrases provided in the Studio Session-provided Library are useful in getting you started on a song, in the event that you might need to "see" how drum tracks are constructed.
The Phrase Library exists to be "borrowed from" - and to be added to. Select that great rhythm track

-- CONTINUED ON NEXT PAGE --

Phrases

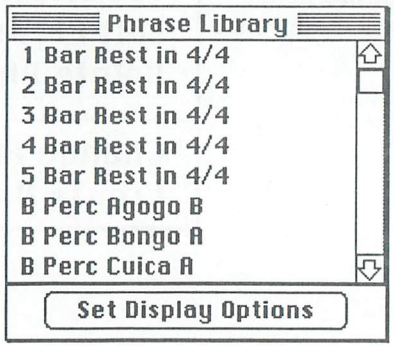
- Show Phrase Library
- Customize Option Names
- Set Display Options
- Edit Phrase Info
- Delete Phrase
- Change Phrase Library
- Create Phrase Library

you just created and add it to the Phrase Library, giving it your own custom name. It's there for future use. You can even designate specialized Phrase Libraries of your own, and collect in archives such phrases as rhythm tracks, sound effects and more.

Every phrase at hand in the Phrase Library awaits your use in experimentation, self-tutoring, or in immediate application.

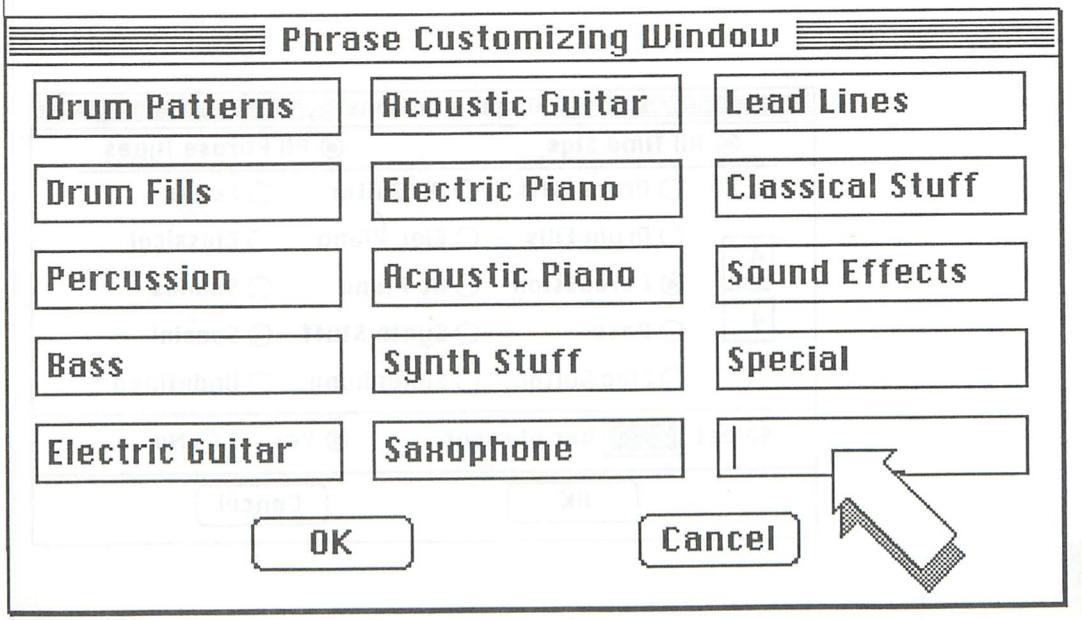
Show Phrase Library

This command brings the PHRASE LIBRARY window to the "front" of the other windows, and located in the lower right quadrant of the screen. It can be "hidden" behind the Staff window be either clicking once on the Staff window display or by moving the cursor to the WINDOW Menu and click-dragging to "Show Notes." This command will bring the Staff window to the forefront.



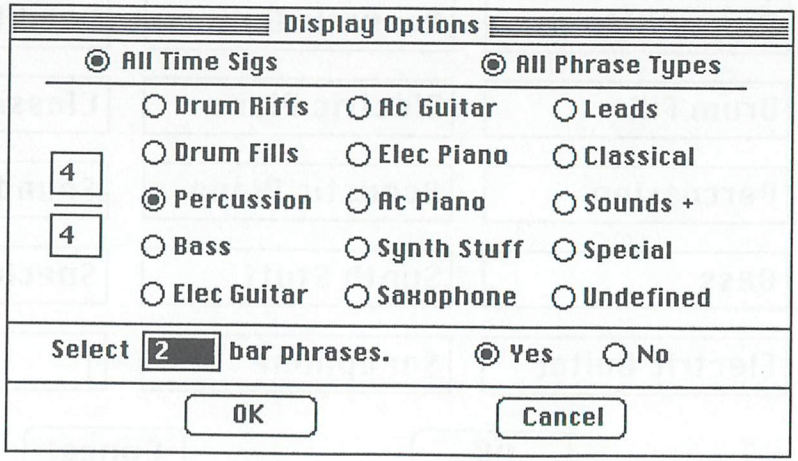
Customize Option Names

You can build and work with a Phrase Library, and additionally even "custom-categorize" the categories of phrases. This command is especially useful if your own arrangements create phrases that don't fit in the already-existing categories. Using this option will allow you to load all "Sound Effects" into a particular branch of your Phrase Library, as a Folder with pertinent Files stored within. The Dialogue box that comes on the screen will have, as shown, an area where you can type in the specific category name you wish to assign to a set of Phrases.



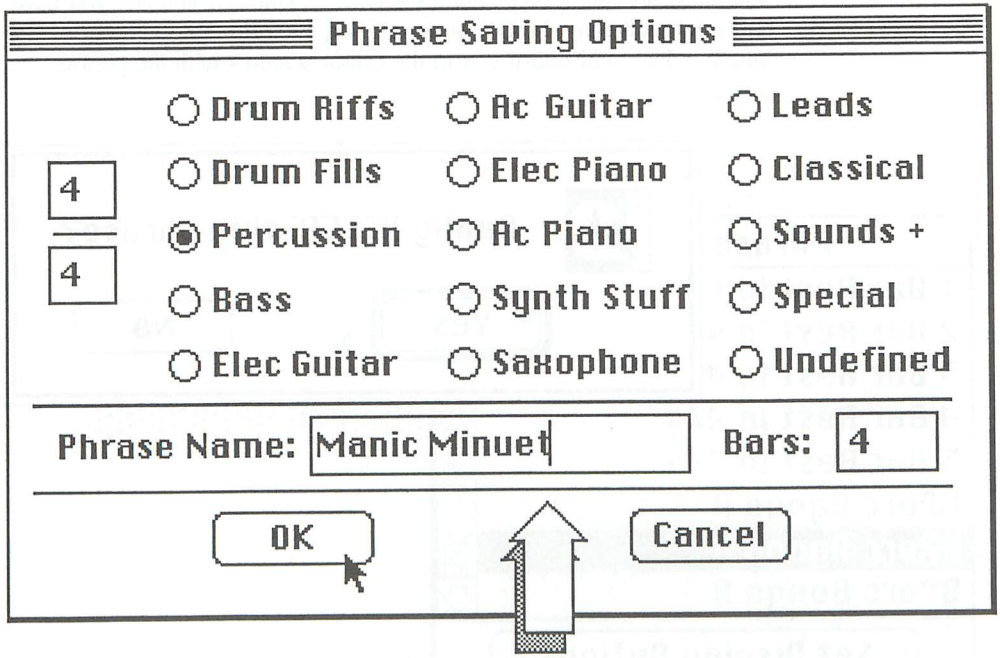
Set Display Options

This acts as a "filter" to screen out phrases that do not fit the category you want to scan. This option serves in tandem with the earlier Customize Option Names function, and with this operation, you can specify the characteristics of your sub-groups of phrases.



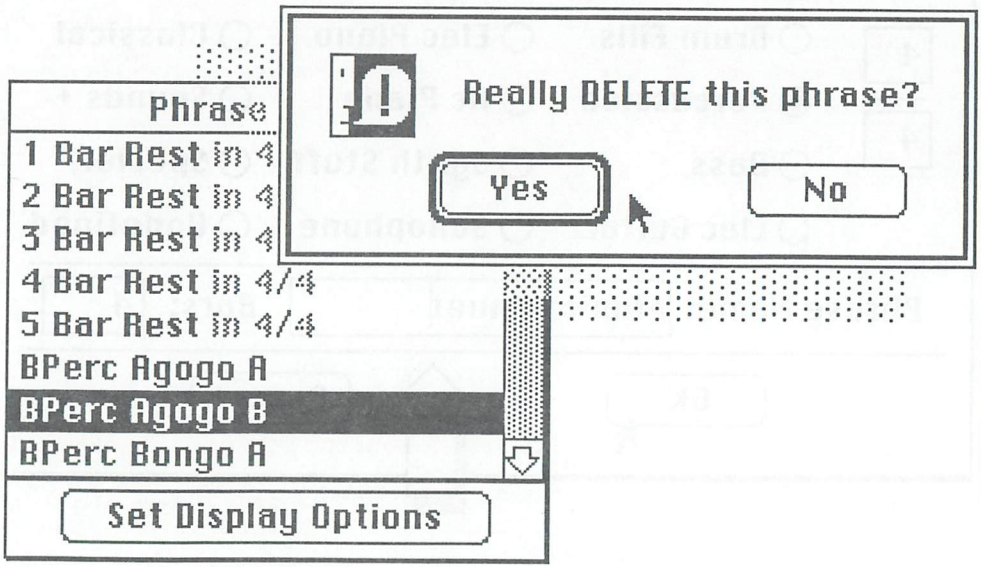
Edit Phrase Info

This option allows you to change a phrase's name along with other characteristics of the phrase. In order to change the phrase itself, delete (erase) the old phrase and SAVE a new phrase under the old phrase name.



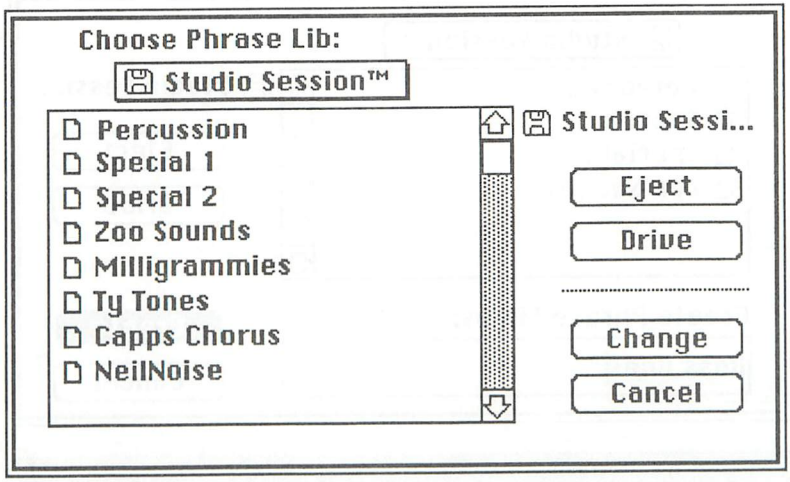
Delete Phrase

This option facilitates the removal of a single phrase from the Phrase Library, and is done by SELECTING the phrase in the Phrase Library and then choosing this option from the Menu. The Editor program will display an Alert Dialogue box that will give you a "fail-safe" opportunity to double-check the deletion action. You will be asked if you really are intent on deleting the phrase, which, if you are, you must confirm by clicking the OK button. If not, click on the CANCEL button, which will return you to the Editor screen - with the phrase intact.



Change Phrase Library

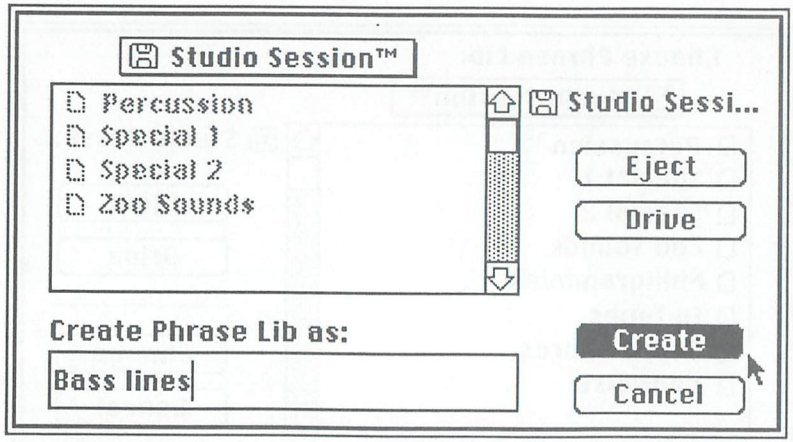
Studio Session provides in the original package one existing Phrase Library compiled from the supplied songs. You can create your own phrase library with the command detailed on the next page, but with this command you are able to open up all of your custom-created phrase libraries. This Dialogue box permits you to view the listing of Libraries and to click on the designated title, click on the CHANGE button and to have a new Phrase Library loaded into the Editor. If there are other Phrase Libraries on other disks, use the EJECT and DISK buttons to interchange and locate your preference.



Create Phrase Library

As with the above option, you can now view all of the already-existing Library titles (inactivated, and in gray type) and then add a new Phrase Library title to the listing. All you do is type (without clicking) the new title, and the new name will appear (as "Bass Lines" appears in the illustration) in the text box. Click (as shown) on CREATE button, and the new Library will be open and ready to store all your Bass Line phrases.

NOTE: All the illustrated Dialogue Boxes should be those used with the Macintosh File System (MFS) used with the standard Macintosh 512K and software issued before 1986. If you see another Dialogue Box, it probably contains all the pertinent features, PLUS the file listing box and the disk icon & name above the file listing. Such a Dialogue Box would be from the new Hierarchical File System (HFS) now used in MAC 512E, Mac Plus and HD-20 systems.



THE WINDOWS MENU

INTRODUCTION

The "windows" of any Macintosh program are the "framed" areas that allow you to work, or to store and recall resources (such as songs, phrases or instruments in Studio Session) at any time. In Studio Session, you have the Player window, which dominates the screen and permits only song playback, or the networking windows of the Editor, including the Instrument Library, Phrase Library and other helpful windows.

Exercising the WINDOWS command options will help you to speedily open the three basic interrelated windows -the STAFF window, INSTRUMENT window and the OVERVIEW window - and a fourth window, the Overview, the details of which are listed further in this chapter. Having already acquainted you with the range of options in the Staff window, and given a review of the applications incorporating the Instrument and Phrase Library windows, we will focus on the Overview window, explaining its particular function. First, we will review the commands in order of appearance.

Windows

Show Notes

Show Instruments
Add Instruments...

Show Overview
Configure Overview

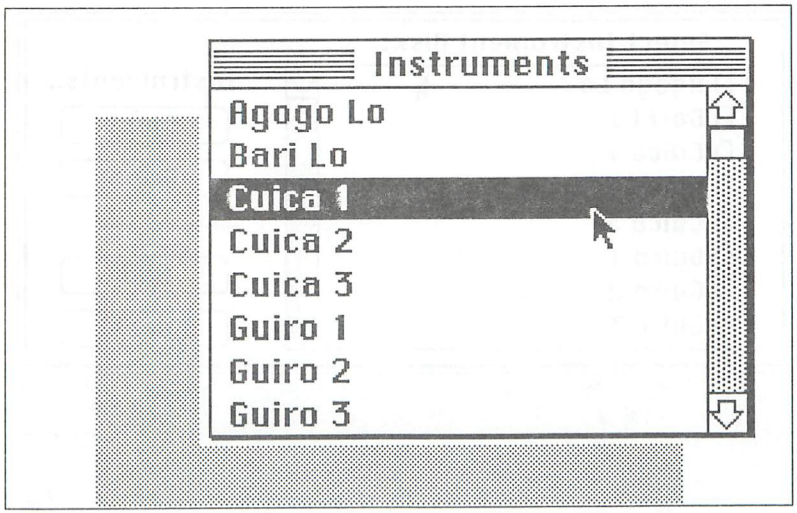
Show Notes

If the Staff window has been replaced or obscured by other windows, SHOW NOTES brings it back to the forefront. (Any windows such as the OVERVIEW window are automatically moved behind the Staff window along with a relocation of the Iinstruments and Phrase Library windows in their normal positions - partially visible between the Track button window and the Staff window.) A shortcut to bringing the Staff window to the forefront is to click on an exposed portion with the cursor - if a portion is showing. This has one visual drawback - you will bring the Staff window to the forefront, but the Overview window will still block the two Library window and the Track button window. If you are through with the Overview, click the Close box in the Title Bar, and the program will reassemble the normal Editor working "package" - the basic four windows in "working" sequence.

NOTE: If your Staff window comes back on screen, but the Title Bar and Scroll Bar are empty, just click once anywhere on the window, and the "active" patterns (such as the gray screens inside the scroll bars) should reappear in their respective locations - signifying that the Editor is prepared for writing or editing.

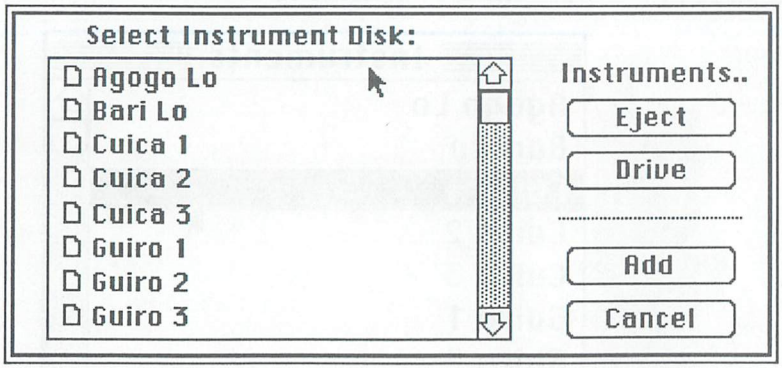
Show Instruments

As an alphabetized listing of the music-producing resources, SHOW INSTRUMENTS is modelled after the File Finder box (used in several other options of the Studio Session Editor). When opened, it displays a listing of the instruments currently available to you. Scroll up or down to find an instrument name, or, type on the keyboard the first letter of that instrument and the window will scroll automatically to the area containing instruments starting with that letter. (IE. "F" key for flutes) If the box is empty, you will need to Insert instruments, which can be done via the next command.



Add Instruments...

After the Editor is first opened and your work in an "Untitled" Staff Window has begun, you'll eventually be compelled to deal with choosing which instruments with which to perform your song. There will be no instruments present in the song as there arenone present in the Instrument Library. The placement of instruments into the song and the subsequent performance of a piece all require instruments being present in the program's memory - which is the function of the Instrument Library. As noted before, the instruments are stored on separate disks, and must be loaded into the Instrument Library, in order for you to play and work on music pieces.



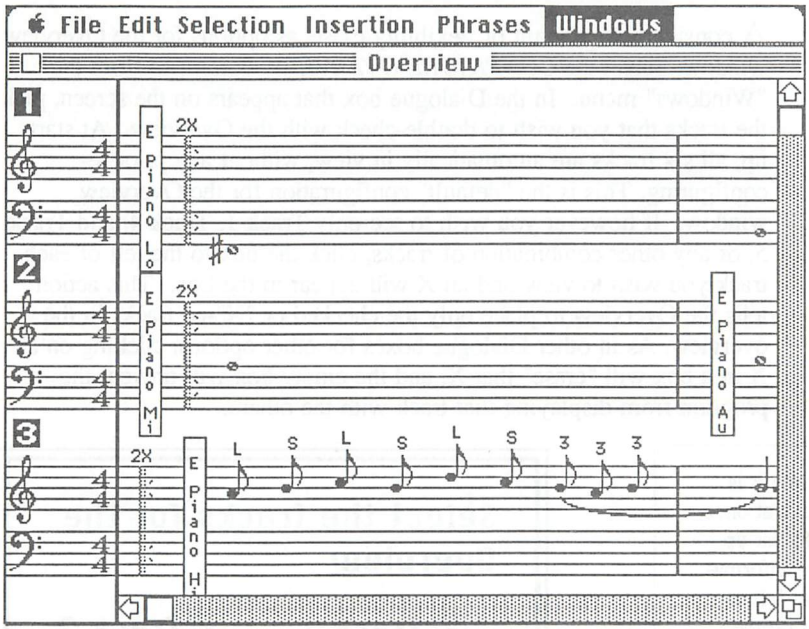
After you select ADD INSTRUMENTS a Dialogue Box, as shown on the previous page, will appear - asking you to select an "INSTRUMENTS" disk (or Folder.) Locate (by inserting disks or peeking into HFS folders) the Instrument files and click on the ADD button. (You do **not** have to click on the various instruments, as clicking once on ADD will load **all** instruments **automatically**.) After ADD-ing the Instrument names (from the first disk) to the Instrument Library, the Select box will reappear. You should now insert the second disk of Instruments. If you are adding instruments from a Folder or Volume stored on a Hard Disk, Studio Session will assume that you have all of your instruments in that one folder, and will not ask you to locate any other possible storage places.

NOTE: "Add Instruments" actually adds only the instrument names to the Editor. When the Editor needs instruments for playback performance of a piece, it will ask you for the disk if that disk is not in a disk drive. Otherwise it will acquire the instruments automatically from disks or folder already accessible to the program. If however you have a Hard Disk, refer to the note located at Step 10 of the Editor Jump-Start, titled "So now you want to win a Grammy?" We suggested certain short steps you should take to optimize use of Studio Session on your Hard Disk.

Show Overview

This window - the OVERVIEW - gives you a chance to step back and get a glance at the overall "picture." The Overview window displays the score with all the different tracks ranked vertically from Track 1 to 6. When you open this window, the complete score is displayed for you to visually check where different notes and rests align, and make a comparison of the complete manuscript. As the Overview window is "drawn" on screen, it will automatically place you in the upper left corner of your score. Use both vertical and horizontal scroll bars to browse through the complete manuscript. To "CLOSE" the Overview window, click the arrow cursor on the small box in the uppermost left corner of the window. The Overview will vanish and the four Editor windows re-appear.

The value of an overview lies in writing a complicated multi-tracked composition - serving the need for keeping tracks properly timed and sequenced. In other words, how you make notes "happen" *when* they are supposed to happen requires being able to simultaneously view all tracks. A composition quickly reveals, during playback, all the elements that are out of "sync." With the overview you will be able to view the tracks together, and see all the tracks at any point. Use the two scroll bars to review the composition up and down through the various "voices." For scanning a multi-part composition with the OVERVIEW, a good "test-piece" is "WIND CLASSICAL", which can be easily loaded from the Songs file on the main program disk.

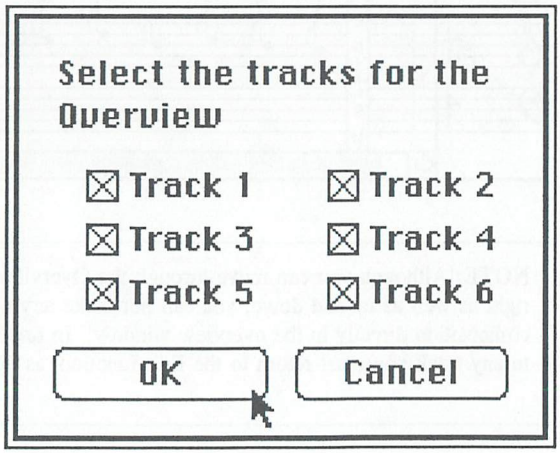


NOTE: Although you can move through the Overview window left and right as well as up and down, you can not make any changes to composition directly in the overview window. In order to make changes to any track you must return to the Edit function, as detailed above.

Configure Overview

A considerable amount of flexibility exists as options for the Overview window. Select the *CONFIGURE OVERVIEW* command from the "Windows" menu. In the Dialogue box that appears on the screen, pick the tracks that you wish to double-check with the Overview. At start-up, all six tracks are automatically in view, without any prior re-configuring. This is the "default" configuration for the Overview window. If however you wish to see only Track 1, Track 4, and Track 5, or any other combination of tracks, click the box to the left of each track you wish to view and an X will appear in the box. This action tells the Overview to place only the checked or "X"-ed tracks in the overview. As in other Dialogue boxes for other options, clicking on an X in a box will "erase" that X, and the empty box will prevent the program from displaying that track with the others.

NOTE: At the present time it is possible to see three tracks at once without moving the scroll bar up or down. The amount of information that is available from left to right is totally dependent on the amount of informations stored on each track.



APPENDIX:

MAC MEMORY MANAGEMENT

A number of consumers have gone out to buy the Macintosh ("The computer for the rest of us...:) and gotten home with their copies of Microsoft WORD, EXCEL, Odesta HELIX, and been reduced to tears because of the infernal trials of swapping disks in and out of the one disk drive that they acquired with the minimum Macintosh system. Or, wild rage was induced by the constant appearance of the alert dialogue "Sorry, Disk Almost Full. Please Save..." We therefore offer this appendix-essay to assist you in your approach to using Studio Session (a multi-disk package) in a variety of Macintosh setups.

First, the good news. Studio Session WILL work on a 512K Macintosh. Studio Session will work even better on larger systems. With 512K of memory, you can create songs that employ from 15 to 25 instruments - depending on their sizes. If your Macintosh has more memory (pre-existing or added-on) you will be able to work with songs that use even more instruments.

A basic rule of thumb is to view Studio Session ,or any other large program, thusly:

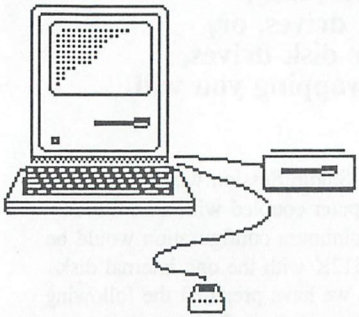
The more disk drives, or, the larger your disk drives, the less disk-swapping you will have to do.

The optimum use of Studio Session would be on a Macintosh Plus computer coupled with a hard disk drive, however the minimum configuration would be to use a Macintosh 512K with the one internal disk drive. For your use, we have prepared the following "Table" of Macintosh equipment & accessory configurations, to help you examine options for optimal application of Studio Session, or other "memory hog" programs.

NOTE: REMEMBER TO BACK-UP YOUR DISKS BEFORE WORKING WITH STUDIO SESSION!

SO... WHAT WORKS & HOW?

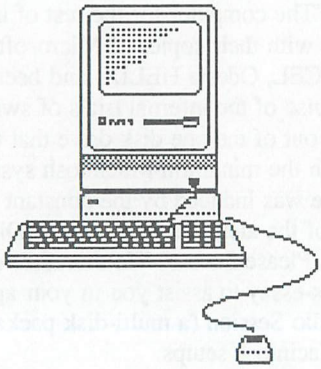
MINIMUM SYSTEM (Disk-swapping required):
• Mac 512K (one internal 400 K disk drive)
COMMENTS: This means that you will need all three program disks plus one more blank disk for your own songs and phrase libraries. Swapping requirements are that you must occasionally exchange all four as requested.



• Mac 512K (Internal AND external disk drives)
COMMENTS: The same amount of disks will be required, but in this situation, you can leave the main program disk (systems disk) in the internal drive, and exchange the others in the external drive.

• Mac 512K with 800K double-sided external disk drive, (2 drives total)
COMMENTS: You can put all systems on to a disk, plus phrase libraries and as many instruments as possible, and leave that disk inside the internal drive. The remaining instruments can be stored on a double-sided disk, and left in the external drive. The only exchanging you might have to do would be to insert disks for your extra phrase libraries and song files.
DISK USE NOTE: All but five or six instruments will fit onto a double-sided disk.
One possible configuration would be to put "Instrument A" instruments onto a double-sided disk and "Instrument B" instruments also onto a double-sided disk. The remaining extra 360K of space will be perfect for Phrase Libraries *AND* song files.

• Mac 512K/Enhanced with 800K disk drive
COMMENT: As you now have two 800K disk drives to work with, you can stuff program and systems plus Phrase Libraries and some instruments into one disk, and the remaining instruments onto the second, and still have some room for songs. This should free you of disk-swapping... Lucky You!



MAXIMUM SYSTEM:

• Mac Plus with hard disk (Apple or Third Party)
COMMENT: If you work from an Apple HD-20, store all of your instruments into an "Instruments" folder, and keep this folder and ALL of the systems and resources in a larger folder, or keep all your materials at the root.
Specifically, you should have the System files, Editor, Player, Phrase Library (the original Studio Session-supplied version), and the two MacPaint files ("Animation" and "Tape Deck") all in one folder.

If your hard disk does not use HFS, then store the materials as you normally would, in folders or volumes. If you keep all the materials together, you will be able to enjoy the instrument auto-loading feature discussed earlier.

WHY DO YOU WANT TO THINK ABOUT THIS?

The key reason to seriously ponder such matters lies in the characteristic Macintosh need to "refresh" the data in memory, which usually means lots of unnecessary time-consuming hand motions on YOUR part. (Disk swapping) If the necessary resource materials are not located in the computer's own hardware tools, the Read-Only Memory (ROM) or Random-Access Memory (RAM), the machine will need to look to the data on the microdisks inserted in the disk drives. And if the necessary resources are not on any of the disks, the operator (you) will find the program interrupting the normal sequence to ask you for information, which will require that you eject and exchange disks.

The relative inconvenience of such swapping varies from individual to individual, depending on your tolerance for dropping Mouse and keyboard to exchange disks. But if you are inconvenienced by the occasional disk-swap, you should contact a reliable authority (a local Macintosh User's group) or a trustworthy vendor, and explore the options listed above and decide whether or not avoiding the time and trouble of disk-swapping is worth the expense of upgrading or adding equipment.
One suggestion we would make would be to ask yourself if you are planning on acquiring more powerful programs (of which Studio Session is one) in order to produce complicated spread sheets, graphics layouts, or if you are already productive with the equipment and software you now possess. If Studio Session is your biggest "memory-hog", as memory-demanding programs are affectionately called, and you are otherwise having no problems with MacWrite, MacPaint and MacDraw, then the solution is to learn to "dance" -to swap disks as infrequently as necessary.
If Studio Session becomes only the latest in your intensive purchase-plan, and you now boast a number of powerful programs that turn your Mac into a "Computational Cuisinart," then you are already well-familiarized with slow operations, slow screen re-writes ("screen refreshes") and far too many tedious disk swaps.

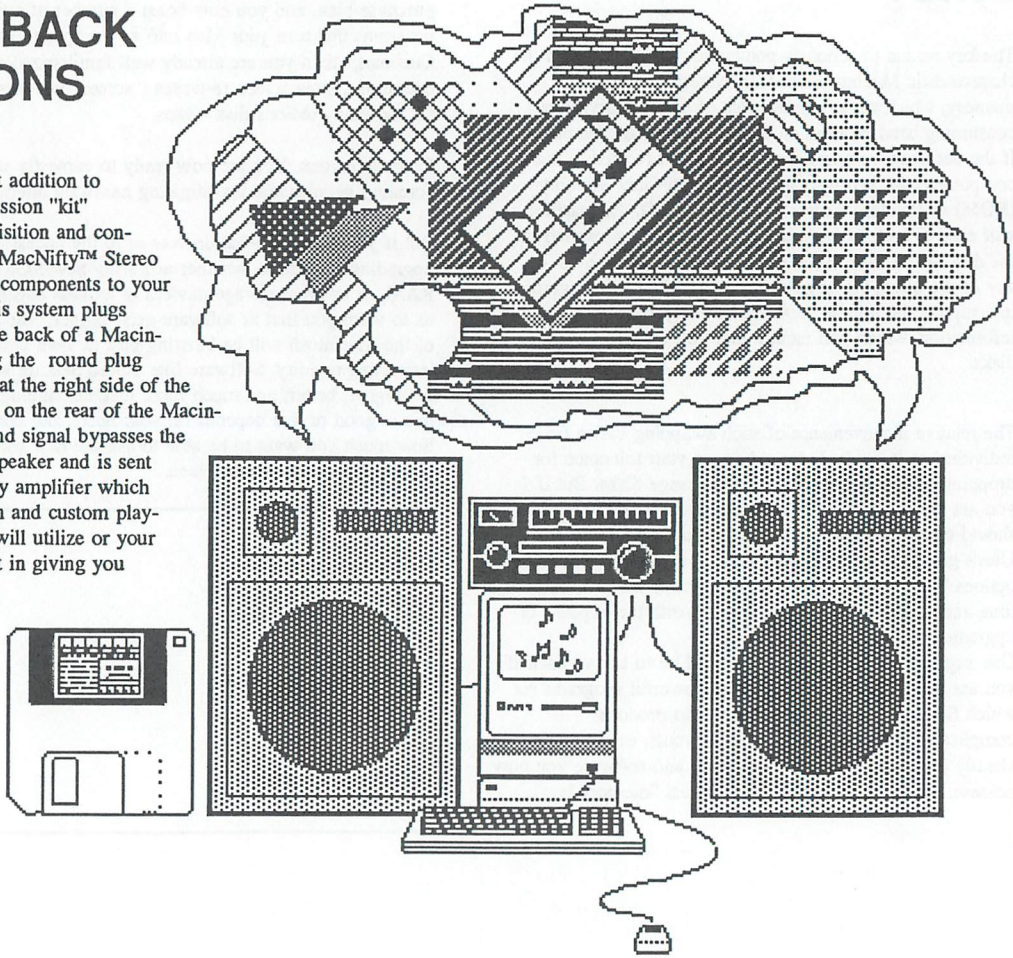
Congratulations. You are now ready to earnestly start counting pennies and investigating hardware alternatives.

But if you are somewhat unclear as to the necessity of upgrading your Mac, whether acquiring new ROMs, more RAM, or external storage devices of endless capacity, allow us to warn you that as software gets "bigger," the potential of the Macintosh will be bursting past its own bounds with increasing rapidity. Software like Studio Session will only get bigger, better, and much more disk-demanding. Whether this is good or bad depends on your needs and tastes, and how much you want to be able to use the new software already hitting the marketplace.

APPENDIX:

PLAYBACK OPTIONS

One significant addition to your Studio Session "kit" would be acquisition and connection of the MacNifty™ Stereo Music System components to your Macintosh. This system plugs directly into the back of a Macintosh 512, using the round plug socket located at the right side of the row of sockets on the rear of the Macintosh. The sound signal bypasses the in-Macintosh speaker and is sent to the MacNifty amplifier which projects a clean and custom playback function will utilize or your own equipment in giving you "live" music.



To play your Studio Session compositions and arrangements through your home hi-fi, you can connect your Macintosh to the amplifier via a 1/8"-to-male RCA plug cable, which is easily purchased at a local electronics supply outlet. The plug that inserts into the Macintosh will plug directly into the port (labelled with a musical note embossed in the plastic housing above the port) on the back of the Macintosh.
NOTE: you can purchase Radio Shack's REALISTIC™ CABLE, Part NO. 42-2444. which will connect your Mac to your audio setup.

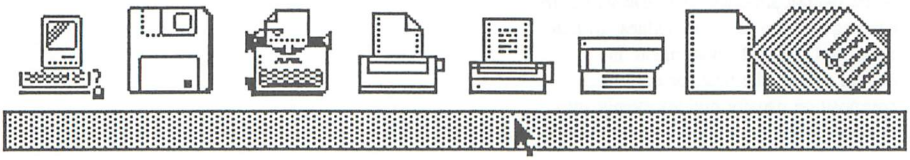
APPENDIX:

PRINTING A MANUSCRIPT OF YOUR SONGS

You will be able to print musical scores of your compositions and arrangements, both on the Imagewriter and the LaserWriter (all versions of both printers.) In order to achieve this you will need to create a Studio Session "Printer" disk, following this procedure.

At present, Studio Session does NOT include a printer driver file in the Systems folder, nor is there a "Choose Printer" or "Chooser" option in the Apple Menu. Installation of these files and accessories will enable you to print song scores. You should first make a back-up copy of the program disk (with the Player and Editor and Systems Folder alone.) You can omit copying the Phrase Library and any Studio Session songs to the copy disk, and thus have more than enough room for printer files. Now copy an Imagewriter printer system file onto the stripped-down disk from a "system" disk such as is provided with the Macintosh. You do not need a "Choose Printer" or "Chooser" option for the Imagewriter I printer. If you are copying the Imagewriter II file, and the Imagewriter Appletalkfile, be sure to employ Font/Desk Accessory Mover (version 3.0) to insert the "Chooser" option into the Desk Accessories, found under the Apple Menu. To install the LaserWriter printer driver you can employ the Apple LASERWRITER INSTALLATION disk. Be sure to select the MINIMUM SET of fonts for the Laserwriter, as it will drastically "stuff" the System file with a quantity of data that (unfortunately) won't ever be used in Studio Session.

FOR INSTRUCTIONS ON PRINTING, SEE THE NEXT PAGE



WHEN PRINTING YOUR SCORE:

First, move your cursor to the "Windows" Menu, and pull down to the "Configure Overview" option. Use the Dialogue Box to select the tracks you wish to print - or to let the default setting select the format. This step is important in that you can elect to print out only one of up to six tracks, or a random pattern of the tracks you have created. After you click on OK, you can now open the "File" Menu to "Print" and start the printing process. (Or, select your printer from the "Choose Printer/Chooser" option and either Laserwrite or Imagewrite your score.)

APPENDIX:

TIME VALUES

This section offers an introduction and review of *TIME VALUES*, particularly for both notes and rests. To use Studio Session™ as an "audio-visual" tutorial of Time Values, you can use the autobarring feature, which is found beneath the Apple symbol in the Menu Bar, within the "Configure Editor" option. It can be a helpful tool for learning (or relearning) about time values.

A "flash" review of the overall structure of music will help you to grasp the meaning and use of Time Values to note the music you've composed. Overall, most music is composed with a regular **meter** (the beat, or rhythm pattern) and each composition usually divides evenly into measures or bars of equal length.

TIME VALUES FOR THE COMPOSITION

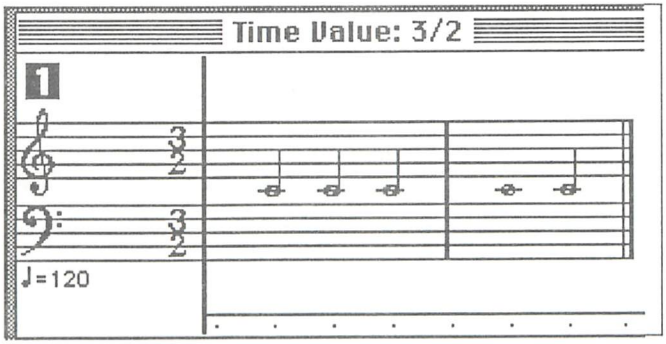
The first *Time Value* we would encounter in a musical piece is the **Time Signature**, consisting of two separated numbers (example: 2/4 or 3/4), written at the beginning of the clef. The signature looks like, but is not, a "fraction" - it visually represents specific musical information.
A specific time signature such as 4/4 tells you that the rhythm counts a total of FOUR (top number) of QUARTER NOTES (bottom number) in each bar. The time signature 3/4 tells you that there are three quarter notes in each bar. That notation would also signify the option of a "count" of 6 eighth notes, 12 sixteenths, or any other variation on the basic 3/4. You needn't reinsert a signature notation every time you arrange the notes to count out any combination of 3 quarter notes.

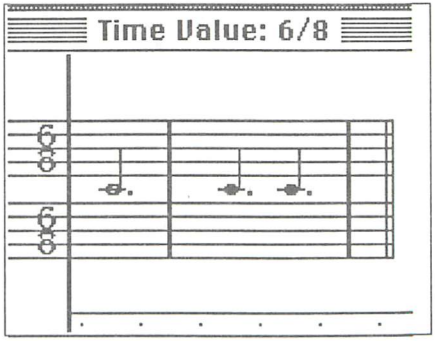
Studio Session™ offers you a flexible spectrum of time signatures, ranging from 1/1 to 32/32.
There is no constraint in your options for the top number, which can be anything between 1 and 32. The bottom number must be one of the following values: 1,2,4,8,16 or 32. That range is assuredly wide – for example, if you employ Studio Session™ to transcribe some polyrhythmic pieces such as African dances which step from 9/8 to 13/16 to 7/8 to 5/4, bar-by-bar, you'll have no problem.
[For our own madcap example of SS's potential for "percussive plasticity", cue "MONKEY MUSIC" onto the Editor screen, review it and then play it. As you'll see, there aren't too many constraints on the rhythmic potential of Studio Session™!

For practice in using *TIME VALUES*, open up an EDITOR screen, and from the Apple Symbol in the Menu Bar, select the option "Configure Editor" -- so that you can request "autobarring" from that Dialogue Box. Start with 4/4 as your base Time Signature and begin placing notes in a new composition, especially splitting individual notes with a tie if you have too much time value for a specific bar.

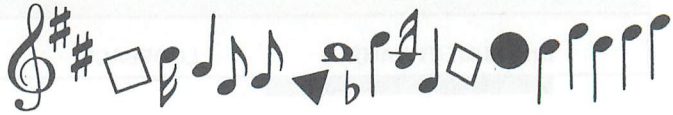
NOTE: *Time Value* is <u>not</u> the same as actual time length, but rather is relative only to the <u>Tempo</u> of the song. Tempo is the rate at which Time is counted off, as specified in quarter notes per minute. The Studio Session™ tempo range can be set from an easy 10 up to a frantic 450 quarter notes per minute. That Studio Session™ option, changing the tempo, is reviewed in the section on the EDITOR SCREEN.

TIME VALUES FOR **SPECIFIC NOTATIONS**





APPENDIX:



INSTRUMENTS -

A complete listing, with pertinent characteristics

This short Appendix presents you with some useful information about your *Studio Session* instruments, organized as a Table for quick, clear (and efficient) reference.

In the Table compiled in the next few pages, the information is straightforward, but a few qualifications do exist - affecting only the 'SOUNDS" column. The "Sounds" column gives specific information, instrument by instrument, to help you know how to interpret the notes. The note "As written" means the note and the notation are the same, as written-for and played on a piano keyboard. Some instruments, such as the basses, will actually sound an octave lower than their notation would suggest, in order to make writing and reading them more convenient (without a lot of ledger lines). Such instruments require a slight adjustment in your approach to notation, but once you've adapted, composing and editing should strain only your creative "muscles". Lastly, not all percussion instruments are pitched. To get the truest sound, write them at C3.

The suggestions for range only mean that the instruments are most faithful to their name in the suggested range. Interesting (read: "Creative!") things can happen *outside* the range; for instance, the English Horn sounds a great deal like a bowed string bass in the range E0-B0. Experimentation with playing instruments above and below their suggested ranges can provide you with both "new" and "old" instruments for your arrangements. The instruments with an * in the "Sounds" column have multiple pitches. Refer to the appendix on Multiple-Note Voices for an explanation of this characteristic. Lastly, "Loopback" means the note can be extended indefinitely. With no loopback, the note will decay (the tone will diminish) and end.

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
A			
Ac Guitar Hi (Acoustic guitar)	No	As written	G2-C5
Ac Guitar Lo	No	As written	B0-G3
Ac Guitar Maj	No	As written*	E2-C4
Ac Guitar Min	No	As written*	C2-A3
Agogo Hi (Brazilian cowbell)	No	Not pitched	G2-D3
Agogo Lo	No	Not pitched	C2-E3
B			
Bari Hi (Baritone saxophone)	Yes	Octave lower	E3-E4
Bari Lo (Baritone saxophone)	Yes	Octave lower	C1-C4
Bass Hi (String bass pizzicato)	No	Octave lower	G1-G4
Bass Lo (String bass pizzicato)	No	Octave lower	C1-E3
Bassoon	Yes	Octave lower	G1-E3
Bongo Hi	No	Not pitched	G2-E3
Bongo Lo (a)	No	Not pitched	E2-E3
Booing (Human sound effect)	No	Not pitched	C3

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
C			
Cello	Yes	As written	G0-E2
Claps	No	Not pitched	C2-F3
Clarinet	Yes	As written	C2-C4
Clarinet Soft (b)	Yes	As written	C2-E4
CowBell	No	Not pitched	F2-E3
Crash Cymbal	No	Not pitched	C2-D3
Cuica 1 (c)	No	Not pitched	C3
Cuica 2	No	Not pitched	B2-D3
Cuica 3	No	Not pitched	B2-F3
D-E			
Dulcian (An early bassoon)	Yes	Octave lower	F2-C4
E Bass (Electric Bass)	No	Octave lower	B1-G4
E Piano13 (Electric Piano left-hand jazz chord)	Yes	As written*	D2-G4

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
E Piano 79 (Electric Piano left-hand jazz chord)	Yes	As written*	A1-E4
E Piano Aug (Electric Piano left-hand jazz chord)	Yes	As written*	D2-A4
E Piano Dim (Electric Piano left-hand jazz chord)	Yes	As written*	C2-F4
E Piano Hi (Electric Piano single note)	Yes	As written	C2-F5
E Piano Lo (Electric Piano single note)	Yes	As written	C0-C3
E Piano Maj3 (Electric Piano left-hand jazz chord)	Yes	As written*	G2-G4
E Piano Maj7 (Electric Piano left-hand jazz chord)	Yes	As written*	C2-F4
E Piano Min3 (Electric Piano left-hand jazz chord)	Yes	As written*	C2-F4
English Horn (d)	Yes	As written	C2-C3

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
F-G			
Flute Hi	Yes	As written	C5-C6
Flute Lo	Yes	As written	A2-A3
Flute Mid	Yes	As written	G3-C5
Guiro 1 (e)	No	Not pitched	F2-C4
Guiro 2	No	Not pitched	F2-F3
Guiro 3	No	Not pitched	F2-E3
Guitar (Electric Guitar single note)	Yes	As written	C2-G4
Guitar 4th (Electric Guitar two notes)	Yes	As written*	A1-D4
Guitar 7 (Electric Guitar chord)	No	As written*	B2-C4
Guitar Aw (Electric Guitar note with pedal effect)	No	As written	G0-A3
Guitar Bent (Electric guitar note bent up)	Yes	As written*	E2-E4
Guitar Bent 4 (Two electric guitar note bent up)	Yes	As written*	D2-G3

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
Guitar Min (Electric Guitar chord)	No	As written*	C2-F4
Guitar Wa (Electric Guitar note with pedal effect)	No	As written	C0-C4
H-O			
HiHat Closed (Foot-operated cymbal)	No	Not pitched	G2-C5
HiHat Open (Foot-operated cymbal)	No	Not pitched	B2-D3
Jazz Snare	No	Not pitched	A2-G3
Kick (Foot-operated bass drum)	No	Not pitched	G2-G4
Oboe (d)	Yes	As written	C3-E4
Orbit (f)	Yes	As written	C0-C4

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
P-R			
Phaser (f)	Yes	As written	G0-G5
Piano 1 (Grand piano, lowest range)	Yes	As written	CO-F1
Piano 1 Soft (Use for dynamic range and in accompanying figures)	No	As written	C0-A1
Piano 2 (Grand piano, low range)	Yes	As written	B0-A2
Piano 2 Soft (Use for dynamic range and in accompanying figures)	No	As written	B0-A2
Piano 3 (Grand piano, mid range)	Yes	As written	B1-C4
Piano 3 Soft (Use for dynamic range; accompanying figures)	No	As written	B1-C4
Piano 4 (Grand piano, upper range)	Yes	As written	C3-G5
Piano 4 Soft (Use for dynamic range and in accompanying figures)	No	As written	C3-G5
Piano 5 (Grand piano, high range)	Yes	As written	C4-C6

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
Piano 5 Soft (Use for dynamic range and in accompanying figures)	No	As written	D3-C6
Recorder (Baroque woodwind)	Yes	As written	G3-D5
Ride Cymbal (Jazz kit time-keeping cymbal)	No	Not pitched	F2-F3
Rock Snare	No	Not pitched	G2-E4
Rooster (Animal sound effect)	No	Not pitched	C3-E4
S-Z			
Shot (f)	No	Not pitched	A0-A3
Splash (A small cymbal)	No	Not pitched	F2-G3
Synth Bass (f)	No	Octave lower	C2-C5
Synth Shot (f)	No	Not pitched	C2-C6
Synth Spring (f)	No	Not pitched	C0-C4
Tambourine (A single tap)	No	Not pitched	B2-E3

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
Tenor Hi (Tenor Saxophone)	Yes	As written	F2-E4
Tenor Lo	Yes	As written	D1-F2
Timbale Hi (Latin percussion instrument)	No	Not pitched	B2-E3
Timbale Lo	No	Not pitched	F2-E3
Tom Hi (Drum kit tom-tom)	No	Not pitched	A1-G3
Tom Lo	No	Not pitched	F2-G4
Tom Mid	No	Not pitched	G1-A3
Voice Hi (Human sound effect)	No	As written	C2-C4
Voice Lo	No	As written	B0-C3
Vulcan Bell (f)	Yes	As written*	G2-F5
Whirl (f)	Yes	As written	B0-G5
Whistle Hi	Yes	Not pitched	C3
Whistle Lo	Yes	Not pitched	C3

INSTRUMENT NAME	LOOPBACK	SOUNDS	PREFERRED RANGE
Whoosh (f)	No	Not pitched	F2-G5
Wood Block	No	Not pitched	A2-C4

FOOTNOTES:

(a) BONGO LO: This instrument sounds like a conga in its lower range.

(b) CLARINET SOFT: For use in high range and accompanying figures.

(c) CUICA: Brazilian howling drum, played by rubbing a stick across the drum head.

(d) ENGLISH HORN, OBOE: Weak as solo instruments, work well in ensemble with other instruments.

(e) GUIRO: Latin percussion instrument, played by rhythmically scratching a stick over the corrugated surface of this gourd-like vessel.

(f) SYNTHESIZER-BASED INSTRUMENTS: To audition the tones of each of these, play (and read) the score of "Synth Demo".

APPENDIX:

MULTIPLE-NOTE VOICES / (CHORDS)

Some Studio Session instruments play a group of notes or a bent note rather than one pure tone. Here is a list of those voices and a description of what they produce:

INSTRUMENT NAME	What a C3 produces	Typical use
Ac Guitar Maj	C2,E2,G2,C3,E3	Classical and folk music
Ac Guitar Min	C2,G2,C3, Eb3,G3	Classical and folk music
E Piano13	Bb2,D3,E3,A3	Left hand of 13 chord
E Piano 79	E3,Bb3,D4	Left hand of 9 chord
E Piano Aug	Bb2,D3,E3,G#3	Left hand of Augmented chord,7 and 9 added
E Piano Dim	C3,Eb3,F#3,A3	Jazz and rock chord
E Piano Maj3	E3,G3,C4	Jazz and rock chord
E Piano Maj7	C3,E3,G3,B3	Jazz and rock chord
E Piano Min3	Eb3,G3,C4	Jazz and rock chord

Guitar 4th	C3,F3	50's-type rock guitar
Guitar 7	C2,G2,Bb2,E3	Rock chord
Guitar Bent	Bb2 bent up to C3	Rock solo effect
Guitar Bent 4	B2,E3 bent up to C3,F3	Rock solo effect
Guitar Min	C2,G2,C3,Eb3,G3	Rock chord
Vulcan Bell	C3,F#3	Synthesizer effect

NOTE: There was no room here to go into an explanation of the jazz voicings. Owing to the large amount of possibilities we couldn't include them all, but there are enough suggested options from other music modes to give you an idea of the fun you can have with Studio Session.

BUILDING A SONG FROM THE PHRASE LIBRARY

The Studio Session Program disk includes a "hidden" resource called the Phrase Library. It contains already-extant sections or phrases of music that you can insert into the song you are working on, and serves as a place where you can store your own phrases. To write a rhythmically complex measure of music, be it rhythm, melody or even sound effects, and then store it as a Phrase will help you save time in the construction of long pieces. You can "clone" the phrase, after it's been written, and then insert it and assign a number of repeats to it, and after six tracks of such work, have a rather complex piece.

To illustrate our points about the flexibility, range and ease of the Phrase Library, we will visually "use" it to construct the song "Brazilperc". On the following pages are sequences of charts reflecting our tutorial printed below. Cross-check between our "script" and the chart and see how it's done.

1.
Load and play "Brazilperc" on the Editor. Note that each track is made up of single repeated phrases from the Phrase Library. handily titled "Brazilperc#1", "Brazilperc#2", etcetera.

2.
Erase the tune from the Editor screen by selecting "New" in the File Menu. The computer should quickly clear "Brazilperc #1" and load the "Untitled" screen. Now you can reconstruct the "Brazilperc" score yourself, following these next few steps.
(In loading phrases from the Phrase Library, you'll see that the notes, accents and accidentals AND the instruments assigned to the phrases are all loaded at once. You may later want to play with changing instruments, but in this exercise, you're going to build a composition with "pre-fab" elements, as it were.)

3.
Set up Track 1 in the Staff Window. Using the Menu Bar option, "Insert" the phrase "Brazilperc #1". As you can see, this is a Guiro phrase 1 measure long. Create a repeat of length 32 around this phrase. We now have 32 bars of this pattern.

4.

Switch to Track 2. Insert two whole-note rests at the beginning, or one whole rest in a repeat of length 2. Following this, insert the phrase "Brazilperc #2". This bongo phrase is 2 bars long. Create a repeat of length 15 around this phrase. Now both tracks should total 32 bars in length.

5.

Play as much of the song as you've created to see how it sounds so far. Note that the bongos should enter two measures after the guiro. Use the play option to double-check your work, along with the "Window" Overview for visual cross-reference.

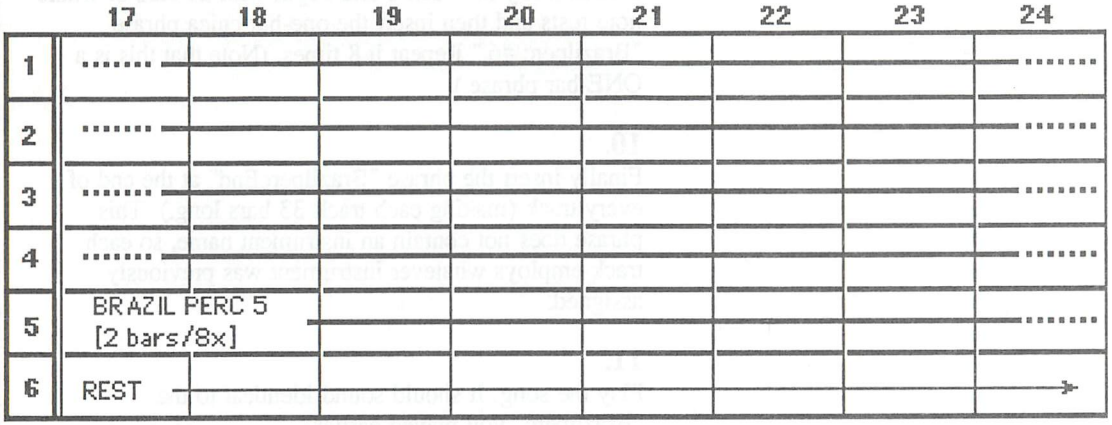
TRACK

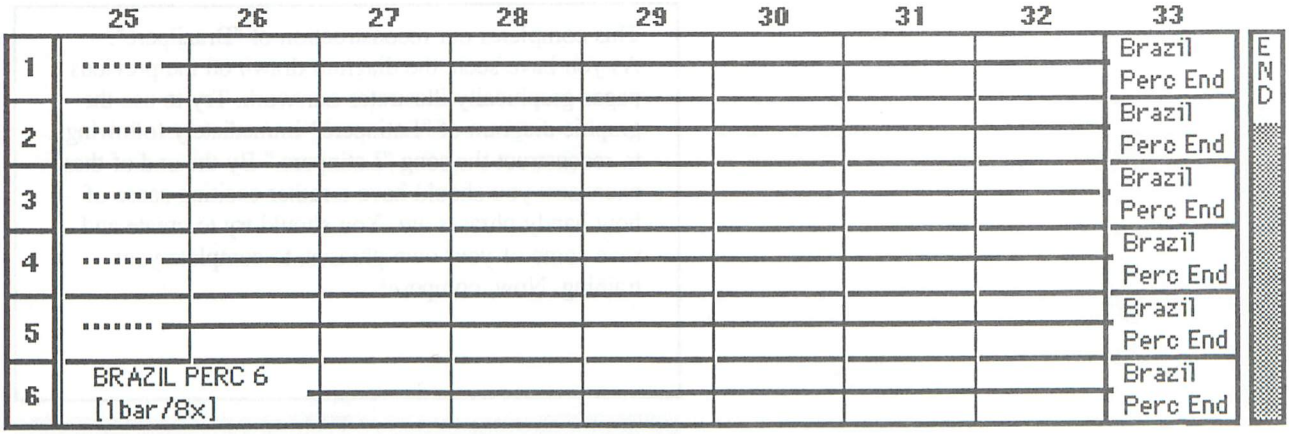
	1	2	3	4	5	6	7	8
1	BRAZIL PERC 1 [1 BAR/32X]							
2	REST		BRAZIL PERC 2 [2 bars/15x]					
3	REST				BRAZIL PERC 3 [2 bars/14x]			
4	REST						BRAZIL PERC 4 [4 bars/6x]	
5	REST							
6	REST							

	9	10	11	12	13	14	15	16
1								
2								
3								
4	BRAZIL PERC 4 [4 bars/6x]							
5	REST							
6	REST							

6.
Now switch to Track 3. Insert four whole note rests at the beginning, then insert the phrase "Brazilperc #3." This gogobell track is two bars long, so it requires a 14 cycle repeat to bring the track up to 32 bars.

7.
Switch to Track 4 and begin it by inserting 8 bars of whole note rests. Then insert the phrase "Brazilperc #4." This whistle phrase is four bars long, so it requires only six repeats for the track to add up to 32 bars.





8.
Switch to Track 5 and begin with 16 bars of whole-note rests, and then insert the two-bar cymbal phrase "Brazilperc #5" and repeat it 8 times.

9.
Switch lastly to Track 6 and begin with 24 bars of whole-note rests and then insert the one-bar cuica phrase "Brazilperc #6." Repeat it 8 times. (Note that this is a ONE-bar phrase.)

10.
Finally insert the phrase "BrazilpercEnd" at the end of every track (making each track 33 bars long.) This phrase does not contain an instrument name, so each track employs whatever instrument was previously assigned.

11.
Play the song. It should sound identical to the "Brazilperc" you played earlier.

This completes our reconstruction of "Brazilperc". As you have seen, the diagram drawn on the previous pages graphically illustrates our work. Try to use the graphic diagram of "Latinperc" immediately following to reconstruct the song "Latinperc." By the end of these exercises, you should have a rather exciting sense of how handy phrases are. You should try to create and save some of your own phrases, to complete your training. Now, compose!

TRACK	1	2	3	4	5	6	7	8
1	Latin Perc 1	(16x)						
2	REST		Latin Perc 2	(14X)				
3	REST				Lation Perc 3	(12x)		
4	REST						Latin Perc 4	(10x)
5	REST							
6	REST							

	9	10	11	12	13	14	15	16	17
1									Latin Perc End
2									Latin Perc End
3									Latin Perc End
4									Latin Perc End
5	Latin Perc 5	(8x)							Latin Perc End
6	REST		Latin Perc 6	(6x)					Latin Perc End

END

AND NOW, ITS YOUR TURN.... HERE'S A BLANK PAGE TO GET YOU STARTED.

TRACK

1								
2								
3								
4								
5								
6								

1								
2								
3								
4								
5								
6								

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